State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	8-26-2012	
API #:	47-033-05562	

LOCATION: Elevation: 1257.77	Quadrangle:	West Milford		
			7 - 149 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
District: Grant Latitude: 12100 Feet South of 39 Deg.	County: Harris		•	
Longitude 1575 Feet West of 80 Deg.				
Company: Dominion Transmission, Inc.				
Address: 445 West Main St	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Clarksburg, WV 26301	1 doing	urining		up Cu. I t.
Agent: James D. Blasingame	16"	40	40	Sanded In
Inspector: Tristan Jenkins	10 3/4 "	815	815	CTS (600sks)
Date Permit Issued: 9-11-2011	7"	1986	1986	CTS (400sks)
Date Well Work Commenced: 2/29/2012	4 1/2"	4512	4512	Cement Top 800
Date Well Work Completed: 4/3/2012				
Verbal Plugging:		-		
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 4600				
Total Measured Depth (ft): 4600				
Fresh Water Depth (ft.): 48': 424				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None				
Void(s) encountered (N/Y) Depth(s) N				
		1 . 11/4/ 1	1.4	ah aat)
OPEN FLOW DATA (If more than two producing formation Producing formation 5th Sand - Bayard Pay	ons piease incit zone denth (ft)	2360-2436	iata on separate	sileet)
Gas: Initial open flow MCF/d Oil: Initial open f	lowE	Bbl/d		
Final open flow commingled MCF/d Final open flow	wB	bl/d		
Time of open flow between initial and final tests	Hour			
Static rock Pressurepsig (surface pressure) a	fterHo	urs	الميم	16% Cop -
Second producing formation Balltown Bradford Benson Pay 20	one depth (ft) 32	252-4370	Office of	Oil in
Gas: Initial open flow 867 MCF/d Oil: Initial open f		3bl/d	, C C,	~ <u>~</u>
Final open flow 295 MCF/d Final open flow		bl/d	C. Comment	1 6 5 A
Time of open flow between initial and final tests 11 [Days Hour		Ų.	J. Sellston
Static rock Pressure 450 psig (surface pressure) a	fter 24 Ho	urs		2855 Car 810
I certify under penalty of law that I have personally examined	and am familia	ar with the info	rmation submitt	ed on this docume
all the attachments and that, based on my inquiry of those indi	ividuals immed	liately responsi	ble for obtaining	the information I
that the information is true, accurate, and complete.	$\overline{}$		C. Con.	
1 25			1 -	
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Were core samples taken? YesNo_X	Were	cuttings caught during di	rilling? Yes	No_X
Were Electrical, Mechanical or Geophysical logs	recorded on this well? I	f yes, please list Gamma R	ay, Temp, Comp Den	nsity, Neutron, PE
NOTE: IN THE AREA BELOW PUT T FRACTURING OR STIMULATING, PHYSI DETAILED GEOLOGICAL RECORD OF COAL ENCOUNTERED BY THE WELLBO	CAL CHANGE, ETC. THE TOPS AND BO	2). THE WELL LOG YOTTOMS OF ALL FO	WHICH IS A S	YSTEMATIC
Perforated Intervals, Fracturing, or Stimulating:				
1st Stage : Benson 4360-4370 (20 shots	;) ; X-Link N2 Assist	; 406 sks 20/40 san	id ; 500 gal ad	cid
2nd Stage : Bradford 3672-3720 (32 sho	its) ; X-Link N2 Assi	st ; 255 sks 20/40 sa	and ; 500 gal	acid
3rd Stage : Balltown 3252-3273 (24 sho	ts) : X-Link N2 Assi	st : 248 sks 20/40 sa	and; 500 gal a	acid
4th Stage : Bayard 2427-2436 (18 shots) : X-Link N2 Assist	: 255 sks 20/40 san	d ; 500 gal ac	id
5th Stage : Fifth Sand2360-2368 (16 sh	ots) : X-Link N2 Ass	sist : 186 sks 20/40 s	and ; 500 ga	l acid
Plug Back Details Including Plug Type and Depth	^{n(s):} None			
Formations Encountered: Surface:	Top Depth		Bottom I	<u>Depth</u>
SEE	ATTACHMENT			
		· · · · · · · · · · · · · · · · · · ·		
				·····

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Formation Description Dominion Transmission Well # 13122

Formation	Тор	Bottom	Show
Fill	0	20	
Sand & Shale	3	188	Damp @ 48'
Shale & Red Rock	188	330	·
Sand & Shale	330	610	1/2" Stream @ 424
Sands	610	1100	
Shale	1100	1230	
Sand	1230	1260	
Shale	1260	1380	
Little Lime	1380	1393	
Shale	1393	1455	
Big Lime	1455	1570	
Big Injun	1570	1622	
Shale	1622	1830	
Gantz	1830	1850	
Shale	1850	2017	
Sand	2017	2032	
Shale	2032	2060	
Sand	2060	2230	
Fifty Foot	2230	2260	Gas @ 2232
Shale	2260	2355	
5th Sand	2355	2370	
Shale	2370	2425	
Bayard	2425	2435	
Shale & Siltstone	2435	2725	
Warren	2725	2840	
Shale	2840	2935	
Speechley	2935	3005	
Shale & Siltstone	3005	3200	
Balltowns	3200	3275	
Shale & Siltstone	3275	3672	
Bradford	3672	3720	
Shale	3720	4360	
Benson	4360	4395	
Shale	4395	TD	
TD	4747		

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	8-26-2012
API#:	47-041-05655

	Ouadranala	Camden		
ON: Elevation: 1372.14	_ Quadrangle:	Camuen		
District: Freemans Crek	County: Lewi			
Latitude: 10925 Feet South of 39 Deg. Longitude 2850 Feet West of 80 Deg.		1. 30 Se		
Longitude 2850 Feet West of 80 Deg.		1. <u>30</u> Se	c.	
Company: Dominion Transmission, Inc				
Address: 445 West Main St	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Clarksburg, WV 26301				
Agent: James D. Blasingmae	13 3/8	34	34	Sanded In
nspector: Bryan Harris	9 5/8	699	699	CTS (285 sks)
Date Permit Issued: 10-18-2011	7	2267	2267	CTS (400 sks)
Date Well Work Commenced: 12-19-2011	4 1/2	4650	4650	Cement Top 1320
Date Well Work Completed: 1-19-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 4747				
Total Measured Depth (ft): 4747				
Fresh Water Depth (ft.): 52				
Salt Water Depth (ft.): 1311				
s coal being mined in area (NY)? N				
Coal Depths (ft.): 183-186 : 617-622 : 1105-1110				
Void(s) encountered (N/Y) Depth(s) N				

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information? believe that the information is true, accurate, and complete.

Static rock Pressure _____ Brig (surface pressure) after _____ Hours

Date

Were core samples taken? Y	'esNo_X	Were cutti	ngs caught during dril	ling? Yes X No
Were Electrical, Mechanical of Gamma Ray, Temperature, Array Induction	or Geophysical logs recorde	d on this well? If yes	, please list Photo Der	nsity,Compensated Neutron
NOTE: IN THE AREA FRACTURING OR STIMU DETAILED GEOLOGICA COAL ENCOUNTERED BY	BELOW PUT THE FOULATING, PHYSICAL CAL RECORD OF THE	HANGE, ETC. 2). T	THE WELL LOG W OMS OF ALL FOR	HICH IS A SYSTEMATIC
Perforated Intervals, Fracturing	g, or Stimulating:			
1st Stage: Benson 4520				
2nd Stage : Balltowns 33				
3rd Stage : Speechley 32				
4th Stage : Bayard 2612-	-2622 (21 Shots) : X-L	ink N2 Assist ; 29	91 Sks 20/40 San	d ; 500 Gal Acid
Plug Back Details Including P	'lug Type and Depth(s):			
Formations Encountered: Surface:		Top Depth	I	Bottom Depth
	SEE A	ATTACHMENT		·
				1
				-

Formation Description

Formation	Тор	Bottom	Show
Fill	0	3	
Sand & Shale	3	183	D. 0.54
Coal	183	186	Damp @ 52'
Sand & Shale	186	300	
Shales & Red Rock	300	516	
Sand & Shale	516	617	
Coal	617	622	
Sand & Shale	622	830	
Sand	830	855	
Shale	855	920	
Sand	920	1115	
Shale	1115	1403	Salt Water @ 1311
Salt Sands	1403	1535	Sair Marel @ 1211
Shale	1535	1640	
Little Lime	1640	1662	
Shale	1662	1690	
Big Lime	1690	1760	
Big Injun	1760	1850	
Shale	1850	2040	
Gantz	2040	2060	
Shale	2060	2240	
Sand	2240	2260	
Shale	2260	2310	
Fifty Foot	2310	2390	
Shale	2390	2540	
5th Sand	2540	2560	
Shale	2560	2615	
Bayard	2615	2620	
Shale & Siltstone	2620	3112	
Speechley	3112	3153	
Shale & Siltstone	3153	3390	
Balltowns	3390	3535	
Shale & Siltstone	3535	4380	
Riley	4380	4410	
Shale	4410	4508	
Benson	4508	4530	Gas Check @ 4621
Shale	4530	TD	84 Mcf
TD	4747		

Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	8-23-2012	
API#:	47-085-09948	

Farm name: William Lamb	_ Operator We	ill No.: 13130			
LOCATION: Elevation: 1122.74	_ Quadrangle:	Quadrangle: Burnt House			
District: Union	_ County: Ritcl	hie			
Latitude: 11900 Feet South of 39 Deg	. 05 Min	n. 00 Se			
Longitude 5300 Feet West of 80 Deg	g. <u>55</u> Mir	n. <u>00</u> Se	c.		
Company: Dominion Transmission, Inc.					
Address: 45 West Main St.	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
Clarksburg, WV 26301					
Agent: James D. Blasingame	16"	42	42	Sand In	
Inspector: David Cowen	10 3/4"	803	803	CTS (600 sks)	
Date Permit Issued: 2/6/2012	7"	2523	2523	CTS(725sks)	
Date Well Work Commenced: 4/20/2012	4 1/2"	5196	5196	Top @ 2060	
Date Well Work Completed: 5/15/2012					
Verbal Plugging:					
Date Permission granted on:					
Rotary Cable Rig					
Total Vertical Depth (ft): 5285					
Total Measured Depth (ft): 5285					
Fresh Water Depth (ft.): 53					
Salt Water Depth (ft.): 1952					
Is coal being mined in area (N/Y)? N	ļ <u>.</u>		<u> </u>		
Coal Depths (ft.): None		<u> </u>	<u> </u>	<u> </u>	
Void(s) encountered (N/Y) Depth(s) N					
Gas: Initial open flowMCF/d Oil: Initial open Final open flow Commingled MCF/d Final open flow	zone depth (ft) flow B	4437-5062 Bbl/d	lata on separate s	sheet)	
Time of open flow between initial and final tests				÷	
Static rock Pressurepsig (surface pressure) a	afterHou	urs		40	
Second producing formation Balltown: Speechley Pay z Gas: Initial open flow Show MCF/d Oil: Initial open Final open flow 1210 MCF/d Final open flow Time of open flow between initial and final tests	flow Show B	Bbl/d bl/d	ĄĘ.	CENED OF	
Static rock Pressure 675 psig (surface pressure)			* .3**	1920	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately assessed in the control of the c all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

5-/3 Date

Were core samples taken? Yes No X Were cuttings caught during drilling? Yes No X Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray, Temp, Comp Density, Neutron, PE NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH. Perforated Intervals, Fracturing, or Stimulating: 5-14-12 Halliburton Frac Job 5 stages 70% Quality Foam. 1st Stage: Alexander 4930-5062 (25 Shots): 142 Bbls Fluid, 25,000 Lbs Sand 2nd Stage: Benson 4626-4798 (23 Shots): 127 Bbls Fluid, 20,500 Lbs Sand 4437-4441 (20 Shots): 155 Bbls Fluid, 20,000 Lbs Sand 3rd Stage: Riley 4th Stage: Balltown 3722-4082 (25 Shots): 188 Bbls Fluid, 40,600 Lbs Sand 5th Stage: Speechley 3330-3358 (20 Shots): 160 Bbls Fluid, 34,100 Lbs Sand Plug Back Details Including Plug Type and Depth(s): None Formations Encountered: Top Depth Surface: 27 SEE ATTACHMENT

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Formation Description

Formation	Тор	Bottom	Show
Fill	0	4	
Shales & Red Rock	4	800	Damp @ 53'
Sands & Shales	800	1390	• -
Salt Sands	1390	1680	Damp @1680
Shale	1680	1934	•
Little Lime	1934	1953	Oil Show @ 1953
Shale	1680	1974	
Big Lime	1974	2020	
Big Injun	2020	2093	
Shales	2093	2277	
Weir	2277	2330	
Shale	2330	2410	
Berea	2410	2430	
Shale	2430	2600	
Thirty Foot	2600	2610	
Shale	2610	2630	
Gordons	2630	2755	
Shale	2755	2765	
Fourth Sand	2765	2792	
Shale	2792	2950	
Bayard	2950	2975	
Shale & Sand	2975	3310	
Warren	3310	3386	Oil Odor @ 3340
Shale	3386	3605	
Speechley	3605	3658	
Shales & Siltstones	3658	3885	
Balltown	3885	4082	
Shales	4082	4440	
Bradford	4440	4450	
Shale	4450	4590	
Riley	4590	4642	
Shales	4642	4716	
Benson	4716	4810	
Siltstones & Shales	4810	5000	
Alexander	5000	5060	
Shale	5060	TD	
TD	5285		

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	10/5/2012	
API#:	47-041-05657	

District: Freemans Creek	n name: Allen & Diane Jerden	(Operator Wel	II No.: 13120		·········
Latitude: 4000 Feet South of 39 Peet West of 80 Deg. 25 Min. 00 Sec. Sec. Deg. 25 Min. 00 Sec. Company: Dominion Transmission Casing & Used in Tubing drilling drilling Left in well up Cu. Ft. Clarksburg, WV 26301 13-3/8 35 35 Sanded In Agent: James Blasingame Inspector: Brian Harris 9-5/8 435 435 CTS (285 sks) Date Permit Issued: 11/21/2011 Date Well Work Commenced: 9/6/2012 7 1671 1671 CTS(330 sks) Date Well Work Completed: 9/27/2012 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary ✓ Cable Rig Rig 4-1/2 4234 Cement Top 137 Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301 4301<	CATION: Elevation: 1068	(Quadrangle: _	Weston		
Latitude: 4000 Longitude 9760 Feet West of 80 Deg. 25 Min. 30 Sec. Sec. Deg. 25 Min. 30 Sec. Company: Company: Dominion Transmission Casing & Used in Tubing drilling Left in well up Cu. Ft. Clarksburg, WV 26301 13-3/8 35 35 Sanded In Agent: James Blasingame Inspector: Brian Harris 9-5/8 435 435 CTS (285 sks) Date Permit Issued: 11/21/2011 11/21/2011 1671 1671 CTS(330 sks) Date Well Work Commenced: 9/6/2012 7 1671 1671 CTS(330 sks) Date Well Work Completed: 9/27/2012 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary	District: Freemans Creek	(County: Lewis	S		
Company: Dominion Transmission		Deg. 07	Min		ec.	
Address: 445 W. Main St Clarksburg, WV 26301 Agent: James Blasingame Inspector: Brian Harris Date Well Work Commenced: 9/6/2012 Verbal Plugging: Date Permission granted on: Rotary Cable Rig Total Vertical Depth (ft): 4301 Fresh Water Depth (ft.): None Is coal Depths (ft.): 391 Casing & Tubing drilling Left in well Cement fill up Cu. Ft. Tubing Used in drilling Left in well Cement fill up Cu. Ft. Salt Water Depth (ft.): None Is coal Depths (ft.): 391	Longitude 9760 Feet West of 80	Deg25	Min	. <u>00</u> Se	ec.	
Address: 445 W. Main St Clarksburg, WV 26301 Agent: James Blasingame Inspector: Brian Harris Date Well Work Commenced: 9/6/2012 Verbal Plugging: Date Permission granted on: Rotary Cable Rig Total Vertical Depth (ft): 4301 Fresh Water Depth (ft.): None Is coal Depths (ft.): 391 Casing & Tubing drilling Left in well Cement fill up Cu. Ft. Tubing Used in drilling Left in well Cement fill up Cu. Ft. Salt Water Depth (ft.): None Is coal Depths (ft.): 391	Deminion Transmission					
Address: 445 W. Main St Clarksburg, WV 26301 Agent: James Blasingame Inspector: Brian Harris Date Permit Issued: 11/21/2011 Date Well Work Commenced: 9/6/2012 Verbal Plugging: Date Permission granted on: Rotary ✓ Cable Rig Total Vertical Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Company: Dominion Transmission					T
Clarksburg, WV 26301 13-3/8 35 35 Sanded In Agent: James Blasingame	445 W. Main St		-		Left in well	
Agent: James Blasingame Inspector: Brian Harris 9-5/8 435 435 CTS (285 sks) Date Permit Issued: 11/21/2011 Date Well Work Commenced: 9/6/2012 7 1671 1671 CTS(330 sks) Date Well Work Completed: 9/27/2012 Verbal Plugging: 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary					25	
Inspector: Brian Harris 9-5/8 435 435 CTS (285 sks Date Permit Issued: 11/21/2011 1671 1671 CTS(330 sks Date Well Work Commenced: 9/27/2012 9/27/2012 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary ✓ Cable Rig 7 1671 1671 CTS(330 sks Total Vertical Depth (ft): 4301 4234 Cement Top 137 Total Vertical Depth (ft): 4301 4301 4301 4301 Fresh Water Depth (ft.): 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 161,351 <td< td=""><td>1 01 :</td><td></td><td>13-3/0</td><td>35</td><td>- 33</td><td>Sanded III</td></td<>	1 01 :		13-3/0	35	- 33	Sanded III
Date Permit Issued: 11/21/2011 Date Well Work Commenced: 9/6/2012 7 1671 1671 CTS(330 sks Date Well Work Completed: 9/27/2012 Verbal Plugging: 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary ✓ Cable Rig Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Tigoin:		0.5/0	425	425	CTC (295 also
Date Well Work Commenced: 9/6/2012 7 1671 1671 CTS(330 sks Date Well Work Completed: 9/27/2012 Verbal Plugging: 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary ✓ Cable Rig Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391			9-5/8	435	435	C15 (205 SKS
Date Well Work Completed: 9/27/2012 Verbal Plugging: 4-1/2 4234 Cement Top 137 Date Permission granted on: Rotary ✓ Cable Rig Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391					1071	070/000 1
Verbal Plugging: 4-1/2 4234 Cement Top 137 Date Permission granted on: Rig			7	1671	16/1	C1S(330 sks)
Date Permission granted on: Rotary Cable Rig Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Date Well Work Completed: 9/27/2012	2				
Rotary Cable Rig Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Verbal Plugging:		4-1/2		4234	Cement Top 1370
Total Vertical Depth (ft): 4301 Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Date Permission granted on:					
Total Measured Depth (ft): 4301 Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Rotary Cable Rig]		<u> </u>		_
Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Total Vertical Depth (ft): 4301					
Fresh Water Depth (ft.): 161,351 Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391	Total Measured Depth (ft): 4301					
Salt Water Depth (ft.): None Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391						
Is coal being mined in area (N/Y)? N Coal Depths (ft.): 391						
Coal Depths (ft.): 391						
Totals) should (i.e.) sopular						
OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)						
Producing formation Riley-Benson Pay zone depth (ft) 3760-4040						
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d		•				CD.
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d	· · · · · · · · · · · · · · · · · · ·					CENTER OF
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d	Static rock Pressure 730 psig (surface p	ressure) afte	rHot	ırs	P.	SOLOW C
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d	Second producing formation Warren, Speechely, Ballito	own Pay zone	depth (ft) 23	34-2972	~66°C	<i>`</i> ₽ ⁽ '''
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d					O.	11:31
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d				bl/d		150°
Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d Final open flow 474 MCF/d Final open flow Show Bbl/d Time of open flow between initial and final tests 240 Hours Static rock Pressure 730 psig (surface pressure) after 2 Hours Second producing formation Warren. Speechely. Balltown Pay zone depth (ft) 2334-2972	Time of open flow between initial and fina	•	Hour	S		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe

that the information is true, accurate and complete,

Static rock Pressure _____psig (surface pressure) after _____Hours

Date

Were core samples ta	aken? Ye	es	No_X		Were cuttin	gs caught during	drilling? Ye	s X	_ No
Were Electrical, Med	hanical or	Geophy	sical logs rec	orded on this w	ell? If yes,	please list Gamn	na Ray,Den	sity,Ne	utron,Temp
NOTE: IN THE FRACTURING OF DETAILED GEOREM	R STIMUI LOGICAI	LATINO L RECO	G, PHYSICA ORD OF TH	L CHANGE, IE TOPS AN	ETC. 2). TI D BOTTO	HE WELL LOG MS OF ALL	WHICH IS	S A SY	STEMATIC
Perforated Intervals,	Fracturing	g, or Stim	ulating:						
1st stage : Benso	n 4034-4	4040 (20 Shots) F	Foam Frac :	111 Bbls	fluid, 307 sks	sand,		
2nd stage: Riley 3	3760-38	56 (20	Shots) Foa	am Frac : 78	Bbls flui	d , 105 sks sa	ınd		
3rd stage: Balltow	n 2940-	2972 (20 Shots)	Foam Frac :	126 Bbls	fluid, 304 sks	sand	·	
4th stage : Speed	hley 271	18-2728	8 (20 Shot	s) Foam Fra	c : 129 B	bls fluid, 300 s	sks sand		
5th stage : Warre	n 2334-2	2507 (23 Shots) F	oam Frac :	106 Bbls	Fluid, 204 sks	sand		
Plug Back Details Inc	cluding Pl	ug Type	and Depth(s)	 					
					_				
Formations Encount Surface:	ered:	- u		Top Depth		/	Bo	ottom De	epth
			SEE A	TTACHED	SHEET				
									
				-					
						· · · · · · · · · · · · · · · · · · ·	7		
									
		-							
				* ***					
						-		<u></u>	
			·						
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					

Formation Description Dominion Transmission Well # 13128

Formation	Тор	Bottom	Show
Sand	0	200	7" Stream Water @ 161
Shale	200	320	
Sand	320	391	6" Stream Water @ 351
Coal	391	401	Coal
RR & Shale	401	792	
Salt Sands	792	900	
Shales	900	1102	
Little Lime	1106	1137	
Shale	1137	1157	
Big Lime	1157	1232	
Big Injun	1232	1331	Gas Odor @ 1282
Shale	1331	1519	Gas Check @ 1376 (84 mcf)
Gantz	1519	1539	
Shale	1539	1624	
Fifty Foot	1624	1643	
Sand & Shale	1643	1960	
Fourth Sand	1960	1965	
Shale	1965	2016	
Fifth Sand	2016	2040	
Shales	2040	2334	
Warren	2334	2509	
Shale	2509	2609	
Speechley	2609	2730	
Shales	2730	2940	
Balltowns	2940	2972	
Shales & Siltstones	2972	3810	Gas Check @ 3103(odor)
Rileys	3810	3860	
Shale	3860	4032	
Benson	4032	4040	
Shales	4040	TD	
Drillers TD	4301		Gas Check @ Collars (Odor)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	9-15-2012
API #:	47-041-05661

Farm name: Marshall Green	Operator Wel	ll No.: 13141			
LOCATION: Elevation: 1435	Quadrangle:	Camden		<u>.</u>	
District: Freemans Creek	County: Lewis	S			
Latitude: 6810 Feet South of 39 Deg.	o7 Min	ı. ³⁰ Se	c.		
Longitude 9130 Feet West of 80 Deg.	35 Min				
Company: Dominion Transmission, Inc.					
Address: 445 West Main St	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
Clarksburg, WV 26301	16	33	33	Sanded In	
Agent: Mr. James D. Blasingame					
Inspector: Bryan Harris	10-3/4	809	809	CTS (535sks)	
Date Permit Issued: 5-23-2012					,
Date Well Work Commenced: 8-15-2012	7	2709	2709	CTS (820 sks)	1
Date Well Work Completed: 9-10-2012					
Verbal Plugging:	4-1/2	5246	5246	Cement Top 2100	
Date Permission granted on:					
Rotary Cable Rig					
Total Vertical Depth (ft): 5282					
Total Measured Depth (ft): 5282					
Fresh Water Depth (ft.): 48					
Salt Water Depth (ft.): None					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): None					
Void(s) encountered (N/Y) Depth(s) N					
OPEN FLOW DATA (If more than two producing formatio	ns pleasa inclu	do additional d	***************************************	h	
	one depth (ft) ³				
Gas: Initial open flow ODOR MCF/d Oil: Initial open flow		ol/d			
Final open flow 822 MCF/d Final open flow		l/d		ر کرمین	- €\$
Time of open flow between initial and final tests 120	Hours				ent to
Static rock Pressure 975 psig (surface pressure) aft	er 24 Hour	rs ·		PET ON	
Second producing formation WARREN-SPEECHLEY Pay zon	ne denth (fi) 346	3-3650	. بمنع	ios in the	and
Gas: Initial open flow MCF/d Oil: Initial open flo		ol/d		W. Carlot	- OUR CALON
Final open flow COMMINGLED MCF/d Final open flow				\$6°	
Time of open flow between initial and final tests		D'G		- Joy 10	real Property
Static rock Pressurepsig (surface pressure) aft		'S		1800 200	35.0
Loortify under monelty of law that I have the					_
I certify under penalty of law that I have personally examined a all the attachments and that, based on my inquiry of those indiv					
that the information is true, accurate and complete.	iouais iiiiiiicula	aciy responsibl	e ioi obtaining ti	ie information I be	sneve

Were core samples taken? Yes	No X Were	cuttings caught during drillin	g? Yes X No
Were Electrical, Mechanical or Geophy. PE.	sical logs recorded on this well? I	If yes, please list Gamma Ray	y, Density, Neutron, Temp
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECOCOAL ENCOUNTERED BY THE V	G, PHYSICAL CHANGE, ETC. ORD OF THE TOPS AND BO	. 2). THE WELL LOG WHI OTTOMS OF ALL FORM	ICH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stim	ulating:		
1st Stage: Benson 5024-5040 (2	25 Shots) : 152 Bbls Fluid, 3	399 sks Sand.	
2nd Stage: Balltown 3918-3924	(20 Shots): 130 Bbls Fluid	d, 300 sks Sand. 3	
3rd Stage: Speechley 2650-3774	l (24 Shots) : 119 Bbls Fluid	d, 298 sks Sand.	
4th Stage: Warren 3480-3500 (2	0 Shots): 122 Bbls Fluid, 1	92 sks Sand	
		ATT	
Plug Back Details Including Plug Type	and Depth(s):		
Formations Encountered: Surface:	Top Depth		Bottom Depth
	SEE ATTACH	ED SHEET	
			
			
			

Formation Description WELL # 13141

	AACCC # 12141	•	
Formation	Тор	Bottom	Show
Soil	0	10	
Shales & Sand	10	49	Damp @ 48'
Shales & Red Rock	51	350	
Sands	350	390	
Sands & Shales	390	1180	
Sands	1180	1312	
Sand & Shale	1312	1580	
Salt Sands	1580	1970	
Shale	1970	2160	
Little Lime	2160	2180	
Shale	2180	2210	
Big Lime	2210	2260	
Big Injun	2260	2372	
Shales	2372	2560	
Gantz	2560	2575	
Sand & Shale	2575	2755	
Gordons	2755	2882	
Shale	2882	2970	
4th Sand	2970	3010	
Shale	3010	3076	
5th Sand	3076	3078	
Shale	3078	3410	
Warren	3410	3512	
Shale & Sand	3512	3606	
Speechley	3606	3760	
Shales & Siltstones	3760	3918	
Balltown	3918	4160	
Shales & Siltstones	4160	4810	
Riley	4810	4820	
Shales	4820	5020	
Benson	5020	5046	
Shales	5046	TD	
TD	5282		

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	10-29-2012	
API#:	47-041-05663	

name: M.B. Riley Heirs	_ Operator We			
ATION: Elevation: 1370	Quadrangle:	vauis		
District: Freemans Creek	County: Lewi			
Latitude: 7820 Feet South of 39 Deg Longitude 1530 Feet West of 80 Deg	g. 07 Mir			
Longhade 1995 Peet West of 55 De	.g	i. <u></u> 56	:C.	
Company: Dominion Transmission,Inc.				-
Address: 445 West Main St	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Clarksburg, WV 26301	16"	35'	35'	Sanded In
Agent: James Blasingame				
Inspector: Brian Harris	10 3/4"	761'	761'	CTS(570 Sks)
Date Permit Issued: 5/23/2012				
Date Well Work Commenced: 9/21/2012	7"	2757'	2757'	CTS (700Sks)
Date Well Work Completed: 10/15/2012				
Verbal Plugging:	4 1/2"		5204'	Cement Top @ 2124
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 5260				
Total Measured Depth (ft): 5260				
Fresh Water Depth (ft.): 76'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None				
Void(s) encountered (N/Y) Depth(s) N				1
PEN FLOW DATA (If more than two producing formation See Frac Report Pa Gas: Initial open flow Show MCF/d Oil: Initial open Final open flow 741 MCF/d Final open flow Time of open flow between initial and final tests	y zone depth (ft) n flow Show E low 2 B	Bbl/d bl/d		sheet)
Static rock Pressure 1170 psig (surface pressure)	after 12 Hou		OSC A	
Second producing formation See Frac Report Pay			~	15:17
Gas: Initial open flow MCF/d Oil: Initial open Final open flow Commingled MCF/d Final open flow MCF/d Final op				
Time of open flow between initial and final tests			•	
Static rock Pressurepsig (surface pressure)				Section of the sectio

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate and complete.

ire D

Wars Floatrical Machanizator Combusinetters and Indiana 1997 GR Temp Density PE Ind
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR, Temp, Density, PE, Ind.
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH. Perforated Intervals, Fracturing, or Stimulating:
Terrorated finervals, Fracturing, or Stimulating.
1st Stage: Benson 5028-5036 (20 Shots): Foam Frac with 203 Bbls & 306 Sks Sand & 500 Gal Acid
2nd Stage : Riley 4796-4912 (20 Shots) : Foam Frac with 159 Bbls & 200 Sks Sand & 500 Gal Acid
3rd Stage : Bradford 4550-4570 (20 Shots) : Foam Frac with 165 Bbls & 201 Sks Sand & 500 Gal Acid
4th Stage: Balltown 3656-3940 (20 Shots): Foam Frac with 190 Bbls & 302 Sks Sand & 500 Gal Acid
5th Stage : Speechley 3406-3520 (20 Shots) : Foam Frac with 163 Bbls & 201 Sks Sand & 500 Gal Acid
Plug Back Details Including Plug Type and Depth(s):
Formations Encountered: Top Depth / Bottom Depth Surface:
SEE ATTACHED SHEET

Formation Description Dominion Transmission Well # 13139

Formation	Тор	Bottom	Show
Fill	0	9	
Sand	9	15	
Sand & Shale	15	30	
Shale & Red Rock	30	187	Damp @ 76'
Sand & Shale	187	417	
Shale & Red Rock	417	476	
Sand & Shale	476	550	
Sand	550	725	
Sand & Shale	725	840	
Shales	840	1180	
Sand	1180	1370	
Sand & Shale	1370	1560	
Sand	1560	1685	
Sand & Shale	1685	1870	
Sand	1870	1995	
Shale	1995	2140	
Little Lime	2140	2180	
Shale	2180	2206	
Big Lime	2206	2268	
Big Injun	2268	2348	
Shale	2348	2568	
Gantz	2568	2590	
Shale	2590	2770	
Sand	2770	2782	
Shale	2782	2850	
Sand	2850	2854	
Gordon	2854	2880	
Shale	2880	3418	
Speechley	3418	3520	
Shale & Siltstone	3520	3655	
Balltowns	3655	3942	Gas Check @ 4245 : Ordor
Shale & Siltstone	3942	4550	
Bradford	4550	4572	
Shale	4572	4796	
Rileys	4796	4890	
Shale & Siltstone	4890	5028	
Benson	5028	5066	Gas Check @ 5165 : Ordor
Shale	5066	TD	
OT.	5260		Gas Check @ TD : Ordor

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1-7-2013	
API#:	47-103265	

Farm name: Mackey-Wolfe 201			_			
rarm name: Mackey-Wolle 201	Operator Well No.: 494501227					
LOCATION: Elevation: 1626	Quadrangle: Thornton 7.5'					
District: Cove	County: Barbo	our				
Latitude: 39.255415 Feet South of Deg.	Min.	Sec				
Longitude <u>-79.886676</u> Feet West ofDeg.	Min.	Sec	•			
Company: Mountaineer Keystone, LLC						
Address: 6031 Wallace Road Ext. Suite 300	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.		
Wexford, PA 15090	20"	42'	42'	3.7 cu. yard		
Agent:	13 - 3/8"	921'	906'	861		
Inspector: Joe McCourt	9 - 5/8"	1,947'	1,932'	806		
Date Permit Issued: 08/01/2012	5.5"	12,608'	12,593'	2,114		
Date Well Work Commenced: 8/10/2012	7 - 7/8"Pilot Hole	None	None	541		
Date Well Work Completed: 12/24/2012						
Verbal Plugging: N/A						
Date Permission granted on: N/A						
Rotary Cable Rig V						
Total Vertical Depth (ft): 7,889' H) 7,989' Pilot						
Total Measured Depth (ft): 12,639 H, 7,989' Pilot						
Fresh Water Depth (ft.): 100'-750'						
Salt Water Depth (ft.): 1,350'-1,700'						
Is coal being mined in area (N/Y)? No						
Coal Depths (ft.): 155', 275', 335', 375', 440', 530', 535'						
Void(s) encountered (N/Y) Depth(s) No						
OPEN FLOW DATA (If more than two producing formation Producing formation Pay: Gas: Initial open flow MCF/d Oil: Initial open flow	zone depth (ft)_		ta on separate s	sheet)		
Final open flowMCF/d Final open flow	vBb					
Time of open flow between initial and final tests						
Static rock Pressurepsig (surface pressure) af	terHour	rs .				
Second producing formationPay zo	ne depth (ft)					
Gas: Initial open flowMCF/d Oil: Initial open fl		ol/d				
Final open flow MCF/d Final open flow						
Time of open flow between initial and final tests						
poig (carried processive) and						

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete,

ignature

1-7-2013

Date

Were core samples taken?	YesX	_No	Were	cuttings caught during drill	ling? Yes_XNo
Were Electrical, Mechanica Pilot hole - PLEX, ECS, Sonic Scann	l or Geophy ner and FMI. CB	/sical logs reco	orded on this well? I	f yes, please list_Yes, MWE	gamma from KOP to TD.
FRACTURING OR STIN	MULATING CAL REC	G, PHYSICA ORD OF TE	L CHANGE, ETC. HE TOPS AND BO	2). THE WELL LOG WI DTTOMS OF ALL FOR	FORATED INTERVALS, HICH IS A SYSTEMATIC RMATIONS, INCLUDING
Perforated Intervals, Fractur	ring, or Stin	nulating:			
Plug Back Details Including	Plug Type	and Depth(s):			
Formations Encountered: Surface:		_	Top Depth	/	Bottom Depth
See Attached Sheet	-				
		<u>.</u>			

Mackey Wolfe 201 As Drilled Formation Tops

	MD	T\/	n .
	טועו	TV:	ט
Big Lime		1405	1405
1st Elk		4604	4604
Burkett Shale		7597	7519
Tully Limestone		7629	7536
Mahantango Shale		7742	7584
Marcellus Shale		8510	7776
Purcell Limestone		8726	7827
Lower Marcellus		8762	7833

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 2, 2013	
API#:	47-1304741	

Operator Wel	l No.:_ J.M. Benn	nett #26	
Quadrangle:	Grantsville		
Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
7"	235	235	Cmt to surface
4-1/2"	2765	2765	90 sks. 174.6 cu/ft.
	RFC	EIVED	
			s
	0.88		
	JAN	1 6 2013	
	140/15	a whose a sect of	£
-	WV De	pariment C	otion
1	UAILUUMA	HISI PICIC	GUOH
zone depth (ft) low 1 B y 5 Bt	2447-2740 bl/d bl/d	ata on separate sl	heet)
ow 10 B y 20 Bl Hours ter 72 Hou and am familia	bl/d bl/d s srs r with the inforn		
	Quadrangle:	Quadrangle: Grantsville County: Calhoun Min. Sec Min. Sec Min. Sec Min. Tubing drilling 7" 235 4-1/2" 2765 Office County: Calhoun WV Delegation Delegation Office County: Calhoun WV Delegation Delegation Office County: Calhoun Note of the County C	County:

1/2/2013 Date

Were core samples taken? Yes No/	Were cutt	ings caught during drilling? Yes	_No
Were Electrical, Mechanical or Geophysical logs	recorded on this well? If yes	s, please list_Density, Neutron-Inc	duction
NOTE: IN THE AREA BELOW PUT TO FRACTURING OR STIMULATING, PHYSI DETAILED GEOLOGICAL RECORD OF COAL ENCOUNTERED BY THE WELLBO	ICAL CHANGE, ETC. 2). THE TOPS AND BOTT	THE WELL LOG WHICH IS A SY OMS OF ALL FORMATIONS, I	STEMATIC
Perforated Intervals, Fracturing, or Stimulating:			
Perf from: 2447-2740, 33 shots. Fracke	d w/ 72,683 gal. water 3	30,000 lbs. 20/40 sand	
32 BPM @ 1176 psi ISZP 68	30		
2363-2384, 17 shots. Fracke	d w 20 420 and water 0	22 000 lba 20/40 aand	
20 BPM @ 1148 psi ISPI 75	, ,	:5,000 lbs. 20/40 sand	
20 Dr iii @ 11 10 por 101 170	,_		
Plug Back Details Including Plug Type and Depth	h(s):		
Formations Encountered: Surface:	Top Depth	/ Bottom D	<u>epth</u>
Big Injun	1942	1994	
Berea	2351	2386	
Gantz	2440	2472	
30'	2588	2634	
Gordon	2711	2742	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-28-2012	9
API#:	47-029-00141	
	,	

REVISED

Farm name: Allison HNK 3H M	Operator Wel	l No.: 834412		
LOCATION: Elevation: 1275'	Quadrangle: East Liverpool South			
District: Clay	County: Hance	ock		
Latitude: 1520' Feet South of 40 Deg.	32 Min		2.	
Longitude 14600' Feet West of 80 Deg.	32 Min			
Company: Chesapeake Appalachia, L.L.C.				
Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	13 3/8"	662'	662'	735 Cu. Ft.
Agent: Eric Gillespie	9 5/8"	1525'	1525'	696 Cu. Ft.
Inspector: Bill Hendershot	5 1/2"	8309'	8309'	2122 Cu. Ft.
Date Permit Issued: 1-18-2012				
Date Well Work Commenced: 4-29-2012				
Date Well Work Completed: 7-30-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 5175' (cement plug @ 3720'-5175')				
Total Measured Depth (ft): 8309'				
Fresh Water Depth (ft.): 500'				
Salt Water Depth (ft.): 795'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 585'				12
Void(s) encountered (N/Y) Depth(s) N				K
			n 100	
OPEN FLOW DATA (If more than two producing formation Producing formation Page 1972)			ata on separate s	heet)
Gas: Initial open flow MCF/d Oil: Initial open flow				
Final open flow 1,161* MCF/d Final open flow		I/d *Calculated	i	
Time of open flow between initial and final tests 239				
Static rock Pressure 3,001* psig (surface pressure) af		rs		
Second producing formation Pay zo	ne denth (ft)			
Gas: Initial open flow MCF/d Oil: Initial open f		bl/d		
Final open flowMCF/d Final open flow			RE	CEIVED N DEP
Time of open flow between initial and final tests				
Static rock Pressurepsig (surface pressure) af			DEC	A
I certify under penalty of law that I have personally examined	and am familiar	with the infor	nation submitted	d on this document and
all the attachments and that, based on my inquiry of those indi	viduals immedia	ately responsib	e for obtaining	he information I believ
that the information is true, accurate, and complete.			Oil al	id Gas

Marlos Williams
Signature

Were core samples taken? Yes X No_	Were cuttings caugh	t during drilling? Yes X No_					
Were Electrical, Mechanical or Geophysical	Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list						
NOTE: IN THE AREA BELOW PU FRACTURING OR STIMULATING, PH DETAILED GEOLOGICAL RECORD COAL ENCOUNTERED BY THE WELI	IYSICAL CHANGE, ETC. 2). THE WEI OF THE TOPS AND BOTTOMS OF	LL LOG WHICH IS A SYSTEM ' ALL FORMATIONS, INCLU	ATIC				
Perforated Intervals, Fracturing, or Stimulating	ıg:						
(See attached)							
Plug Back Details Including Plug Type and I	Depth(s): (cement plug @ 3720'-51	75')					
Formations Encountered: Surface:	Top Depth /	Bottom Depth					
(See attached)							

PERFORATION RECORD ATTACHMENT

Well Number and Name: 834412 Allison HNK 3HM

PERF	DRATION RE	ECORD				STIMULAT	ION RECO	RD		
	Interval P	erforated				F	luid	Propp	ing Agent	Average
Date	From	То	Date	Interval	Treated	Туре	Amount	Туре	Amount	Injection
7/27/2012	7,849	8,212	7/27/2012	7,849	8,212	Slk Wtr	5,777	Sand	532,304	86
7/27/2012	7,435	7,798	7/27/2012	7,435	7,798	Slk Wtr	5,739	Sand	529,683	87
7/28/2012		7,384	7/28/2012	7,021	7,384	Sik Wtr	5,949	Sand	529,442	86
7/28/2012		6,970	7/28/2012	6,607	6,970	Sik Wtr	6,397	Sand	530,130	87
7/28/2012	6,193	6,556	7/28/2012	6,193	6,556	Sik Wtr	6,627	Sand	516,999	83
7/29/2012	5,779	6,142	7/29/2012	5,779	6,142	Sik Wtr	6,423	Sand	527,378	86
7/29/2012	5,365	5,728	7/29/2012	5,365	5,728	Slk Wtr	5,896	Sand	533,846	87
7/30/2012	4,951	5,314	7/30/2012	4,951	5,314	Slk Wtr	6,248	Sand	587,686	86
 										
 										
 						-				
 										
	-									
				-						

Vertical

Formation/Lithology	TVD Top	MD Top	TVD Bottom	MD Bottom
Pennsylvanian Unconsolidated	0'	0'	615'	615'
Big Injun SS	615'	615'	690'	690'
Shale	690'	690'	1300'	1300'
Berea SS	1300'	1300'	1375'	1375'
Shale	1375'	1375'	3800'	3800'
Java Shale	3800'	3800'	4200'	4200'
West Falls Fm.	4200'	4200'	4950'	4950'
Tully Limestone	4950'	4950'	4988'	4988'
Hamilton Shale	4988'	4988'	5070'	5070'
Marcellus Shale	5070'	5070'	5100'	5100'
Onondaga Limestone	5100'	5100'		
Pilot TD			5175'	5175'
Horizontal (from Mudlogs)				
Pennsylvanian Unconsolidated	0'	0'	615'	615'
Big Injun SS	615'	615'	690'	690'
Shale	690'	690'	1300'	1300'
Berea SS	1300'	1300'	1375'	1375'
Shale	1375'	1375'	3800'	3800'
Java Shale	3800'	3800'	4200'	4200'
West Falls Fm.	4550'	5096'		
Well TD			4618'	8254'
Tully Limestone	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated
Hamilton Shale	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated
Marcellus Shale	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated
Onondaga Limestone	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	6/22/11	
API #:	4705101384	

Farm name: Zien	_ Operator We	ll No.: 1H		***************************************
LOCATION: Elevation: 1300' KB	_ Quadrangle:	Majorsville		
District: Webster	County: Mars	shall		
	g. <u>55</u> Mii	n. 00 Se		
Longitude 11304 Feet West of 80 De	g. <u>32</u> Mir	n. 30 See	c.	
Company: Chief Oil & Gas		_		
Address: 5960 Sherry Ln - Suite 1500	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Dallas, TX 75225	24"	80'	80'	Sanded in
Agent: Chad S. Lovejoy	20"	397'	397'	
Inspector: Bill Hendershot	13 3/8"	1159'	1159'	1192 circ
Date Permit Issued: 10/7/10	9 5/8"	2379'	2379'	906 circ
Date Well Work Commenced: 11/22/10	5 1/2"	10997'	10997'	2523'
Date Well Work Completed: 12/21/10				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 6776'				
Total Measured Depth (ft): 11301'				
Fresh Water Depth (ft.): 98'				
Salt Water Depth (ft.): NA				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 825'				
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formation MRCL Pay Gas: Initial open flow MCF/d Oil: Initial open	zone depth (ft)		ata on separate s	heet)
Final open flow 1573 MCF/d Final open flo		bl/d	APP I	
Time of open flow between initial and final tests 24 Static rock Pressure NA psig (surface pressure)			6	
Static fock Pressurepsig (surface pressure)	aneiiiot	.115	. 0	
	one depth (ft)		171- 1	
Gas: Initial open flowMCF/d Oil: Initial open		Bbl/d		
Final open flowMCF/d Final open flo Time of open flow between initial and final tests	owB Hours	bl/d s		
Static rock Pressurepsig (surface pressure)				

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Date

Were core samples taken? YesNo_^	_ We	Were cuttings caught during drilling? Yes No					
Were Electrical, Mechanical or Geophysical logs re	ecorded on this well	? If yes, please list_	MWD				
NOTE: IN THE AREA BELOW PUT TI FRACTURING OR STIMULATING, PHYSIC DETAILED GEOLOGICAL RECORD OF 'COAL ENCOUNTERED BY THE WELLBOR	CAL CHANGE, ET THE TOPS AND	C. 2). THE WELI BOTTOMS OF	LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING				
Perforated Intervals, Fracturing, or Stimulating:							
500 shots							
Sand 1,856,205 # 100 mesh							
Sand 2,823,750 # 40/70 mesh							
107,306 Bbl treated FW							
Plug Back Details Including Plug Type and Depth(s): NA						
Formations Encountered: Surface:	Top Depth		Bottom Depth				
Shale	0	1	145				
Sandstone & Shale - 1" Water 98'	225	1	547				
Coal	547	1	550				
Sandstone & Shale	550	1	739				
Coal	739	1	746				
Sandstone & Shale	746	1	828				
Coal	828	1	835				
Sandstone & Shale	835	1	935				
Shale/Red Rock	935	1	1220				
Sandstone & Shale - Gas Show 2029'	1220	1	4416				
Shale - KOP 6340'	4416	1	6621				
Burkett	6621	1	6713				
Tully	6713	1	6780				
Hamilton	6780	1	7049				
Marcellus	7049	1	11301				

107-18

State of West Virginia

Department of Environmental Protection

Office of Oil and Gas Well Operator's Report of Well Work DATE:

API No: 47-097-03791H

JUN 2 6 2012

Lease No: 63848, 210294, 210295, 210296

Farm Name: WOODY, D.J., ET AL Operator Well No. ALT8BHS (406837) Quadrangle: Alton 7.5' LOCATION: Elevation: 2460.74' District: Washington County: Upshur Latitude: 1,564 Feet South of: 38 47 30 Sec. Deg. Min. Longitude: 1,604 Feet West of: 80 10 Min. 00 Sec. Deg.

Company: CNX Gas Company LLC

Company: CNA Gas Company LLC			-017	100m
	Casing and Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 1248				
Jane Lew, WV 26378				
Agent: Kent Wright				
Inspector: Bill Hatfield				
Date Permit Issued: 05/20/2011				
Date Well Work Commenced: 10/06/2011	20"	40'	40'	68 sks
Date Well Work Completed: 01/28/2012				
Verbal Plugging:	13 3/8"	660'	660'	435 sks
Date Permission granted on:				
Rotary Cable Rig X	9 5/8"	2001'	2001'	640 sks
Total Vertical Depth (feet): 5570'				
Total Measured Depth (feet):	7"	5533'	5533'	750 sks
Fresh Water Depth (ft.): N/A				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)?: No				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s)				

OPEN FLOW DATA

01/28/2012 - VERTICAL AND HORIZONTAL DRILLING INCOMPLETE. PLAN ON RECONVENING THE VERTICAL AND HORIZONTAL DRILLING IN 2014.

Producing formation		Pay zone depth (ft)		
Gas: Initial open flow	MCF/d	Oil: Initial open flow	0	Bbl/d
Final open flow	MCF/d	Final open flow_	0	—Bbl/d
Time of open flow between	initial and final tests		12	_Hours
Static Rock Pressure		psig (surface pressure) after	12	Hours

Second Producing format	tion		Pay zone depth (ft)_		
Gas: Initial open flow	*	MCF/d	Oil: Initial open flow	*	Bbl/d
Final open flow	*	MCF/d	Final open flow	*	Bbl/d
Time of open flow	between initial a	and final tests		*	Hours
Static rock Pressure	*		psig (surface pressure) after	*	Hours

* COMMINGLED WITH PREVIOUS FORMATIONS

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete

Signature

6-25-12

Date

DC 22-12

WR-35 Rev (5-01) Page 2 of 2	WELL:	ALT8BHS (406837)	
Were core samples taken?	Yes NoX_	Were cuttings caught during drilling?	Yes <u>X</u> No
Were Electrical ,	_Mechanical , _X _ or	Geophysical logs recorded on this well?	
PHYSICAL CHANGE, ETC. 2).	THE WELL LOG WHICH IS	DETAILS OF PERFORATED INTERVALS, FRA A SYSTEMATIC DETAILED GEOLOGICAL RE	ECORD OF THE TOPS AND

PERFORATED INTERVALS, FRACTURING, OR STIMULATING:

1/28/2012 NO FRACTURE.

VERTICAL AND HORIZONTAL DRILLING INCOMPLETE.

PLAN ON RECONVENING THE VERTICAL AND HORIZONTAL DRILLING IN 2014.

FORMATIONS ENCOUNTERED:

:: : : ·

Fill	0	40	Surface Rock	40	110	Sand&Shale	110	155	Sand	155	368
Shale	368	405	Sand/Shale	405	521	Sand/Shale	521	546	Sand/Shale	546	740
Shale	740	810	Sand&Shale	810	1000	RedRock Shale	1000	1055	Sand/Shale	1055	1160
RedRock/Shale	1160	1180	RedRock/Shale/Sand	1180	1350	Sand	1350	1500	RedRock	1500	1570
Sand&Shale	1570	1680	Sand	1680	1810	Sand&Shale	1810	2080	Sand&Shale	2080	2510
Shale	2510	3260	Sand	3260	3390	Shale	3390	4010	Sand&Shale	4010	4220
Gray Shale	4220	4460	Sand/Shale	4460	4810	Shale	4810	5240	Sand Shale	5240	5450
Shale	5450	5570									

WR-35 Rev (8-10) Page 1 of 2

the information is true, accurate, and complete

Signature

State of West Virginia Department of Environmental Protection

DATE: JUN 2 6 2012 API No: 47-097-03790H

Lease No: 63848, 210294, 210295, 210296

Office of Oil and Gas Well Operator's Report of Well Work

Farm Name:	WOODY, D.J., E	T AL	•	_Operator \	Well No. Al	LT8AHS (40	6835)	n Jil
LOCATION:	Elevation: 2460	.74'		_ Q	uadrangle: A	Alton 7.5'	nester.	, JUM
Dist	rict: Washington			Count	y: Upshur	rdi	VOJ P	Alen.
Latit	ude: 1,578	Feet South of:	38	Deg.	47 Min.	30 Sec.	- COUNTY	man
Longit	ude: 1,616	Feet West of:	80		10 Min.	00 Sec.		
Company:	CNX Gas Comp	any LLC						
				Casing and	Used in drilling	Left in well	Cemen up Cu.	
Address:	P.O. Box 1248							
) 	Jane Lew, WV 26	378						
Agent:	Kent Wright							
	Bill Hatfield							
Date Permi		5/20/2011						
	Work Commenced:			20"	40'	40'	130	sks
	Work Completed:	01/20/2012					120	DALD
Verbal Plug				13 3/8"	657'	657'	430	sks
	ssion granted on:							
Rotary	Cable	Rig X		9 5/8"	2044'	2044'	640	sks
Total Vertic	cal Depth (feet):	7405'						
	ured Depth (feet):			7"	5528'	5528'	700	sks
	er Depth (ft.): N/A							
Salt Water		N/A						
Is coal bein	g mined in area (N	/Y)?: No						
Coal Depth	s (ft.):N/A							
Void(s) enc	ountered (N/Y) De	pth(s)						
OPEN FLO	DRILLI DRILLI	012 - SET CEMENT PL NG INCOMPLETE. PL NG IN 2014.	AN O		IING THE VERT		IZONTAL	
	al open flow		MCI	F/d		l open flow		Bbl/d
	al open flow		MCI			l open flow	_	
		ween initial and fina			Tina	open now	10	Bbl/d
	Ē.	ween middi dha ima	1 1001		<i>(</i>) C		Hours
Static Ro	ck Pressure			psig	g (surface pre	ssure) arter	12	Hours
Gas: Initia Fina	roducing formation al open flow lopen flow lopen flow betw	* * veen initial and final	MC MC	F/d	Oil: Initial	depth (ft) open flow open flow	* E	Bbl/d Bbl/d
Static rock		*	iosis		(surface pres	sure) after	h	lours
		TOUS FORMATIO	MIC	psig	(surrace pres	sure) arter	*F	Hours
I certify under pe	nalty of law that I have p	personally examined and	am fa					

Date

Rev (5-01)

WELL: ALT8AHS (406835)

Page	2	of	2

Were core samples taken?	Yes No <u>X</u>	Were cuttings caught during drilling?	Yes <u>X</u> No
Were Electrical ,	_Mechanical,_X_	or Geophysical logs recorded on this well?	
NOTE: IN THE AREA RELOW	PUT THE FOLLOWING.	1) DETAILS OF PERFORATED INTERVALS ED	CTUDING OD STIMULATIN

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

PERFORATED INTERVALS, FRACTURING, OR STIMULATING:

1/20/2012 SET CEMENT PLUG WITH 435 SKS @ 5000'.

8 8 1 ...

NO FRACTURE.

VERTICAL AND HORIZONTAL DRILLING INCOMPLETE.

PLAN ON RECONVENING THE VERTICAL AND HORIZONTAL DRILLING IN 2014.

FORMATIONS ENCOUNTERED:

Fill	0	40	Surface Rock	40	110	Sand&Shale	110	155	Sand	155	368
Shale	368	405	Sand/Shale	405	521	Sand/Shale	521	546	Sand/Shale	546	740
Shale	740	810	Sand&Shale	810	1000	RedRock Shale	1000	1055	Sand/Shale	1055	1160
RedRock/Shale	1160	1180	RedRock/Shale/Sand	1180	1350	Sand	1350	1500	RedRock	1500	1570
Sand&Shale	1570	1680	Sand	1680	1810	Sand&Shale	1810	2055	Cement	2055	2085
Sand&Shale	2085	2100	Shale	2100	2235	Sand&Shale	2235	2505	Shale	2505	2530
Shale&RedRock	2530	2595	Shale	2595	2956	Sand&Shale	2956	3236	Shale	3236	3570
Sand&Shale	3570	3620	Shale	3620	4355	Sand&Shale	4355	4470	Shale	4470	4630
Sand & Shale	4620	1950	Chala	1050	1010	C1 CL-1-	1010				

	GAMMA		
	RAY /		
	FORMATION	N	
#ALT8AHS (406835)	TOPS		47-097-03790H
	TOP	BASE	
FORMATIONS MEASURED IN TVD			
HOLE NOT LOGGED UNTIL KICKOFF POINT			
BURKETT	7120	7180	and the second s
TULLY	7180	7215	
HAMILTON	7215	7300	
MARCELLUS	7300	7387	
TVD TD	7413		

Date December 4, 2009 API# 47-051-01276

State of West Virginia Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

Farm Name:

Randy and Lisa McDowell B 6H

Operator Well No.:

627052

LOCATION

Elevation:

1356'

Quadrangle: County:

Wileyville

Latitude:

District:

Meade 1250 ft

00" 45 390

Longitude:

4600ft

Marshall

West of

South of

404 00" 80°

Company: Chesapeake Appalachia, L.L.C.

P.O. Box 18496

OKC, OK 73154-0496

Agent: James E. Grey Inspector: Bill Hendershot Date Permit Issued: 06/15/2009

Date Well work commenced: 08/20/2009 Date Well Work completed: 09/19/2009

Verbal Plugging Permission

Granted on / /

Rotary X Cable ☐ Rig

Total Depth (ft):12,027 TVD (ft): 7,127

Fresh Water Depth (ft): NA Salt Water Depth (ft.):NA

Is coal being mined in area (Yes \(\subseteq \) No \(\subseteq \))

Coal Depths (ft):

Was this well logged and plugged back?

Yes No X if yesdepth cement plug set

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill-Up Cu.Ft.
13 3/8	1,205'	1,205'	CTS
9 5/8	2,706'	2,706'	CTS
5 1/2	12,027'	12,027'	2,315 sks
	*	nea	EIVED

Office of Oil & Gas

JAN 1 7 2013

Open Flow Data

WV Department of **Environmental Protection**

1st Producing Formation

Gas: Initial Open Flow

2692 Mcf/day

Pay Zone Depth 7,734 ft to 11,786 ft Initial Open Flow Oil:

N/A

Final Open Flow

N/A Mcf/day

Final Open Flow

N/A

bbl/day bbl/day

Time of Open Flow between Initial and Final Tests Static Rock Pressure

3,920 psig after

N/A hours

hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Chesapeake Energy Well No.: 627052

Danfaugted Intervals

Periorate	Intervals				7 22 2 2
1st Stage	Marcellus	10	holes from	11,484 ft to	
2 nd Stage	Marcellus	10	holes from	11,109 ft to	
3rd Stage	Marcellus	10	holes from	10,734 ft to	
4th Stage	Marcellus	10	holes from	10,359 ft to	10,661 ft
5th Stage	Marcellus	10	holes from	9.984 ft to	10,286 ft
6th Stage	Marcellus	10	holes from	9,609 ft to	9,911 ft
7th Stage	Marcellus	10	holes from	9,234 ft to	
8th Stage	Marcellus	10	holes from	8,859 ft to	
9th Stage	Marcellus	10	holes from	8,484 ft to	
10th Stage	Marcellus	10	holes from	8,109 ft to	8,411 ft
11th Stage	Marcellus	10	holes from	7,734 ft to	8,036 ft

Fracturing / Stimulation

	Stimulation				
1 st Stage		Type of Treatment Slickwater			
	Total Acid 5,000 Gal of	f 15 % HCl		n Pressure 6,030 psi	
	Average Rate 100 scf/r		ATP 8,418	Bpsi MTP 9,431 psi	
	Total Fluid 16,994 bbl	Total Nitrogen 0 scf	Total San	d 303,142 lb 100 mesh	
			Total San	d 310,425 lb of 40/70	
	ISIP 4,875 psi	5 min 4,045 psi			
2nd Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of		Breakdown	n Pressure 5,888 psi	
	Average Rate 100 scf/m			psi MTP 9,263 psi	
	Total Fluid 11,858 bbl	Total Nitrogen 0 scf	Total San	d 292,157 lb 100 mesh	
			Total San	d 303,786 lb of 40/70	
	ISIP 4,548 psi	5 min 3,849 psi			
3rd Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of		Breakdown Pressure 6,056 psi		
	Average Rate 100 scf/m	in 🔲 or bpm 🔀	ATP 8,097	psi MTP 9,467 psi	
	Total Fluid 14,378 bbl	Total Nitrogen 0 scf	Total San	d 292,157 lb 100 mesh	
			Total San	d 303,300 lb of 40/70	
	ISIP 5,119 psi	5 min 3,875 psi			
4th Stage	-	Type of Treatment Slickwater			
	Total Acid 2,500 Gal of			Pressure 5,670 psi	
	Average Rate 100 scf/m	in 🔲 or bpm 🔯	ATP 8,575	psi MTP 9,437 psi	
	Total Fluid 13,419 bbl	Total Nitrogen 0 scf	Total San	d 299,932 lb 100 mesh	
			Total San	d 302,960 lb of 40/70	
	ISIP 4,318 psi	5 min 3,530 psi			
5th Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of		Breakdown	Pressure 5,815 psi	
	Average Rate 100 scf/m	in 🔲 or bpm 🗵	ATP 8,350	psi MTP 9,123 psi	
	Total Fluid 11,998 bbl	Total Nitrogen 0 scf	Total San	d 298,735 lb 100 mesh	
			Total San	d 306,768 lb of 40/70	
	ISIP 4,987 psi	5 min 3,765 psi			
6th Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of		Breakdown	Pressure 5,483 psi	
	Average Rate 100 scf/m			psi MTP 9,512 psi	
	Total Fluid 11,886 bbl	Total Nitrogen 0 scf	Total San	d 301,548 lb 100 mesh	
			Total San	d 300,563 lb of 40/70	
	ISIP 4,543 psi	5 min 3,558 psi			
7th Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of	15% HCl	Breakdown	Pressure 5,499 psi	
	Average Rate 100 scf/m			psi MTP 9,107 psi	
	Total Fluid 11,887 bbl	Total Nitrogen 0 scf		d 301,140 lb 100 mesh	
			Total Sand	d 301,980 lb of 40/70	
	ISIP 4,882 psi	5 min 3,831 psi			
8th Stage		Type of Treatment Slickwater			
- 1	Total Acid 2,500 Gal of	15% HCl		Pressure 6,884 psi	
	Average Rate 100 scf/m	in 🗌 or bpm 🛛		psi MTP 8,897 psi	
	Total Fluid 11,938 bbl	Total Nitrogen 0 scf		d 301,140 lb 100 mesh	
			Total Sand	d 316,470 lb of 40/70	
	ISIP 4,783 psi	5 min 3,965 psi			
9th Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of	15% HCl		Pressure 6,466 psi	
	Average Rate 100 scf/m	nin 🗌 or bpm 🛛	ATP 8,344		
	Total Fluid 11,977 bbl	Total Nitrogen 0 scf		1 299,534 lb 100 mesh	
			Total Sand	1318,360 lb of 40/70	
	ISIP 4,780 psi	5 min 3,812 psi			
10th Stage		Type of Treatment Slickwater			
	Total Acid 2,500 Gal of	15% HCl		Pressure 6,179 psi	
	Average Rate 100 scf/m	nin 🗌 or bpm 🔯		psi MTP 9,361 psi	
	Total Fluid 11,977 bbl	Total Nitrogen 0 scf		d 300,048 lb 100 mesh	
***************************************			Total Sand	d 302,400 lb of 40/70	
	ISIP 4,780 psi	5 min 3,812 psi			
11th Stage		Type of Treatment Slickwater			

Total Acid 2,500 Gal of	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 6,179 psi		
Average Rate 100 scf/m	in 🔲 or bpm 🛛	ATP 7,844 psi	MTP 8,467 psi		
Total Fluid 12,596 bbl	Total Nitrogen 0 scf	Total Sand 299	7,749 lb 100 mesh		
		Total Sand 308	3,991 lb of 40/70		
ISIP 4,809 psi	5 min 3,829 psi				

Well Log

Well Log			
Formation Name	Top	Bottom	Comments
Pittsburgh Coal	1141	1148	-
Big Dunkard	1645	1681	
Freeport Coal	1700	1706	
Gas Sands	1714	1837	
Salt Sands	1851	2000	
Maxtons	2037	2235	
Big Lime	2235	2290	
Big Injun	2290	2556	
Gordon	3115	3124	From mudlog
Geneseo	6977	6998	
Tully	6998	7020	
Hamilton	7020	7112	
Marcellus	7112	NR	
i			
 -			

Signed	1: Jal Odin
Ū	CHESAPEAKE APPALACHIA, LLC
Ву: _	TAL ODEN
Date:	1-5-10

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	12-17-12	
API#:	47-103266	

Farm name: Mackey-Wolfe 202	Operator Wel	l No.: 4945012	27	
LOCATION: Elevation: 1626	ON: Elevation: 1626 Quadrangle: Thornton 7.5'			
District: Cove Latitude: 39.255434 Feet South of Deg.	County: Barbour			
Longitude -79.88663 Feet West of Deg.	Min Min	Sec . Sec		
<u> </u>				
Company: Mountaineer Keystone, LLC				
Address: 6031 Wallace Road Ext. Suite 300	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Wexford, PA 15090	20"	41'	41'	3.5 cu. yards
Agent:	13 - 3/8"	923'	919'	844
Inspector: Joe McCourt	9 - 5/8"	1,968'	1,964'	812
Date Permit Issued: 07/03/2012	5.5"	12,006	11,990'	2,917
Date Well Work Commenced: 8/10/2012	0.0	12,000	11,000	2,517
Date Well Work Completed: 12/7/2012				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig V				
			<u> </u>	
Total Measured Depth (ft): 12,292' Fresh Water Depth (ft.): 100' - 750'				
Salt Water Depth (ft.): 1350 - 1,700				
Is coal being mined in area (N/Y)? No	530, 535			
Coal Depths (ft.): 155, 275, 335, 375, 440	530,533		<u> </u>	
Void(s) encountered (N/Y) Depth(s) No				
OPEN FLOW DATA (If more than two producing formation Producing formation Wasters on Complete Pay z	ns please includ	le additional da	ata on separate sl	heet)
Gas: Initial open flow MCF/d Oil: Initial open flow		1/d		
Final open flow MCF/d Final open flow	Bbl	/d		
Time of open flow between initial and final tests	Hours			
Static rock Pressurepsig (surface pressure) aft	erHour	S	106	
Second producing formation W. Lux 30 (and) Pay zon	e depth (ft)		Caller of	2110
Gas: Initial open flowMCF/d Oil: Initial open flo	owBb	1/d	Will BO	2 2 Wil
Final open flow MCF/d Final open flow Bbl/d			S. Service	
Time of open flow between initial and final tests Hours Static rock Pressure psig (surface pressure) after Hours Second producing formation				
posg (custoov processor) and		•	اكاته	John's,
I certify under penalty of law that I have personally examined a	nd am familiar	with the inforn	nation submitted	(อัก this document and
that the information is true, accurate, and consoled	iduais immediai	ery responsible	e tot obsøkring (ne miormation I defieve
(AtoM		1	12-18-12	
	4/_			-
Signature	'		Date	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-12-2012
API #:	47-1502878

Farm name: King, Marjorie A.			Operator Well ?	No.: 27		
LOCATION: Elevation: 998'			Quadrangle: E	khurst		
District: Union			County: Clay			
Latitude: 0	Feet South of 38	B Deg.		44.7	Sec.	
	Feet West of 8		12 Min.	25.1	Sec.	
Pouzar Oil	Company					

Company: Rouzer Oil Company	- · ·	T	1	To
Address: P.O. Box 987 Spencer, WV 25276	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	9 5/8"	351'	351'	110
Agent: J. B. Hildreth	7"	1529'	1529'	248
Inspector: Ed Gainer	4 1/2"	1951'	1951'	87
Date Permit Issued: 12-05-2011				
Date Well Work Commenced: 6-25-12				
Date Well Work Completed: 10-3-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 1980'				
Total Measured Depth (ft): 1980'				
Fresh Water Depth (ft.): 350'				
Salt Water Depth (ft.): 1100'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s) N				

	nan two producing formations ple jun Sand Pay zone de		ional data on separate sheet)	
	MCF/d Oil: Initial open flow		-	
•	MCF/d Final open flow 0			
• —	n initial and final tests 48	Hours		
Static rock Pressure 80	_psig (surface pressure) after 48	Hours		
Second producing formation_	Pay zone dep	th (ft)		
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d		
Final open flow	MCF/d Final open flow	Bbl/d		
Time of open flow betwee	n initial and final tests	Hours		
Static rock Pressure	_psig (surface pressure) after	Hours		. 0 t

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe

that the information is true, accurate, and complete. 12-18-12

Were core samples taken? Yes	_No_X	Were cutti	ngs caught during drilli	ng? Yes_XNo
Were Electrical, Mechanical or Geoph	ysical logs recorded	d on this well? If yes	, please list	
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATIN DETAILED GEOLOGICAL REC COAL ENCOUNTERED BY THE	IG, PHYSICAL C CORD OF THE T	HANGE, ETC. 2). 7 FOPS AND BOTT	THE WELL LOG WH OMS OF ALL FOR	IICH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stin	mulating:			
Perforations: 42 holes between 1	884' to 1898'			
Stimulation: Sand fracture consis	sting of 679 bbl.	of water and 49,3	00 lbs. of sand with	a breakdown
pressure of 1,810 psi and maximu	um treating press	sure of 1,930 psi		
Plug Back Details Including Plug Type	e and Depth(s):			
Formations Encountered: Surface:	Т	op Depth	/	Bottom Depth
See attached.				
	7			

- · · · •

_OGICAL RECORD OF KING NO. 27

Formation	
Soil	:
Sand	
Slate	-
Shale	.* <u>.</u>
Sand	18 10 10 10 10 10 10 10 10 10 10 10 10 10
Slate	4
Sand	Ŷ.
Slate	•.
Sand	
Slate	
Sand	* * *
Slate	
Shell/Sl	ate
Sand/Sl	ate
Slate	
Sand	•
Sand/S	hale
Sand	•
Sand/S	Shale j
Sand	
Sand/S	Shale
Sand	•
Shale	Red Rock
	n Sand
	Lime
Penc	il Cave
Big I	_ime
	ner Sand
	Injun
_ 1	Daale .

Red Rock

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-12-2012	
API #:	47-1502879	

arm name: King, Marjorie A. Op		No.: 28		
LOCATION: Elevation: 1022	Quadrangle: Elkhurst			
District: Union Latitude: 0 Feet South of 38 Deg. Longitude 0 Feet West of 81 Deg.				
Company: Rouzer Oil Company			T. A	lo en
Address: P.O. Box 987 Spencer, WV 25276	1 doning	Used in drilling	Left in well	Cement fill up Cu. Ft.
	9 5/8"	352'	352'	110
Agent: J. B. Hildreth	7"	1,568'	1,568'	254
Inspector: Ed Gainer	4 1/2"	2,003'	2,003'	77
Date Permit Issued: 12-05-2011				
Date Well Work Commenced: 7-5-12				<u> </u>
Date Well Work Completed: 9-6-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 2,054				
Total Measured Depth (ft): 2,054				
Fresh Water Depth (ft.): N				
Salt Water Depth (ft.): 1,120				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s) N				
Gas: Initial open flow 75 MCF/d Oil: Initial open flow 25 MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure 75 psig (surface pressure) af	zone depth (ft) ow0B v0B 48Hours ter48 _Hou ne depth (ft) iowBHours	bl/d bl/d s ars bbl/d bbl/d s		sheet)

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

12-18-12 Data

Date

Were core samples taken? YesNoX	Were cuttings caught during drilling? Yes X NoNo			
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list				
FRACTURING OR STIMULATING, PHYS	THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, SICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC F THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING ORE FROM SURFACE TO TOTAL DEPTH.			
Perforated Intervals, Fracturing, or Stimulating:				
Perforations: 40 holes between 1,907' to l	1,927'.			
0: 1: 0 16 4 5 5	720 bbl of conductible broaddown			
pressure of 1,551 psi and maximum treati	728 bbl. of water and 44,500 lbs. of sand with breakdown ing pressure of 2.142 psi.			
p. 600 61 0 0 1 1,00 1 por 41.10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
Plug Back Details Including Plug Type and Dept	th(s):			
Formations Encountered: Surface:	Top Depth / Bottom Depth			
See attached.				
· · · · · · · · · · · · · · · · · · ·				

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GEOLOGICAL RECORD OF KING NO. 28

Formation Soil Sand	<u>Depth</u> 0 – 10 10 – 50
Slate	50 – 90
Shale	90 – 100
Sand	100 – 300
Slate	300 - 420
	420 – 420 420 – 490
Sand	420 – 490 490 – 550
Slate	
Sand	550 – 570
Slate	570 – 590
Sand	590 – 650
Slate	650 – 680
Shell/Slate	680 – 710
Sand/Slate	710 – 790
Slate	790 – 820
Sand	820 – 1110
Sand/Shale	1110 - 1140
Sand	1140 – 1360
Sand/Shale	1360 – 1400
Sand	1400 – 1440
Sand/Shale	1440 – 1470
Sand	1470 – 1500
Shale/Red Rock	1500 – 1520
Sand/Shale	1520 – 1525
Shale	1525 - 1545
Maxon Sand	1545 - 1595
Little Lime	1595 – 1650
Pencil Cave	1650 – 1660
Big Lime	1660 – 1770
Keener Sand	1770 - 1800
Big Injun	1880 - 1934
Red Rock	1934 - 2054

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-12-2012	
API#:	47-1502880	

Farm name: King, Marjorie A.	Operator Wel	l No.: 29		
LOCATION: Elevation: 1092'	Quadrangle:	Elkhurst		
District: Union Latitude: 0 Feet South of 38 Deg. Longitude 0 Feet West of 81 Deg.	County: Clay 26 Min 12 Min			
Company: Rouzer Oil Company				
Address: P.O. Box 987, Spencer, WV 25276	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	9-5/8"	352'	352'	110
Agent: J. B. Hildreth	7"	1,606'	1,606'	260
Inspector: Ed Gainer	4-1/2"	2,079	2,079	57
Date Permit Issued: 12-05-11				
Date Well Work Commenced: 7-17-12			<u> </u>	
Date Well Work Completed: 8-16-12		ļ		
Verbal Plugging:				
Date Permission granted on:				ļ
Rotary Cable Rig				
Total Vertical Depth (ft): 2,108				
Total Measured Depth (ft): 2,108			1	
Fresh Water Depth (ft.): 100			·	
Salt Water Depth (ft.): 1,200				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 450 to 453				
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formation Producing formation Big Injun Sand Pay a Gas: Initial open flow 75 MCF/d Oil: Initial open flow Time of open flow between initial and final tests Static rock Pressure 60 psig (surface pressure) af Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow Time of open flow MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure psig (surface pressure) af Static rock Pressure psig (surface p	zone depth (ft)_ low0	hl/d bl/d bl/d sirs bl/d bl/d	ata on separate s	heet)

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

12-18-12

Date

Were core samples taken? YesNo_	X Were c	uttings caught during drillin	g? Yes Y No
Were Electrical, Mechanical or Geophysical	logs recorded on this well? If	yes, please list	
NOTE: IN THE AREA BELOW PUFRACTURING OR STIMULATING, PHOETAILED GEOLOGICAL RECORD COAL ENCOUNTERED BY THE WELL	HYSICAL CHANGE, ETC. 2 OF THE TOPS AND BO	2). THE WELL LOG WHI TTOMS OF ALL FORM	CH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stimulati	ng:		
Perforations: 44 holes between 1,95	4' to 1,976'		· .
	- of COO bb. of water one	4.41.900 lbs. of cond.w	ith brookdown
Stimulation: Sand fracture consistin pressure of 1,456 psi and maximum			illi bieakdowii
pressure or 1,400 psi and maximum	trouting procedure of 2,1.		
Plug Back Details Including Plug Type and	Depth(s):		
Formations Encountered: Surface:	Top Depth		Bottom Depth
See attached.			

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GEOLOGICAL RECORD OF KING NO. 29

<u>Formation</u>	<u>Depth</u>
Soil	0 - 8
Sand	8 – 82
Slate	82 – 120
Shale	120 – 150
Sand	150 - 300
Slate	300 – 420
Sand	420 – 450
Coal	450 – 453
Slate	453 – 580
Sand	580 - 650
Slate	650 – 680
Sand	6 8 0 – 700
Sand	700 – 740
Slate	740 – 770
Shell/Slate	770 – 800
Sand/Slate	800 - 830
Sand/Slate	830 – 860
Slate	860 – 890
Slate	890 – 930
Sand	930 – 960
Sand	960 – 990
Sand	990 – 1020
Sand	1020 – 1050
Sand	1050 – 1090
Sand/Shale	1090 – 1110
Sand/Shale	1110 – 1180
Sand	1180 – 1312
Sand	1312 – 1370
Sand/Shale	1370 – 1410
Sand	1410 – 1450
Sand/Shale	1450 – 1500
Sand	1500 – 1570
Shale/Red Rock	1570 – 1600
Sand/Shale	1600 – 1665
Shale	1665 – 1684
Maxon Sand	1684 - 1738
Little Lime	1738 – 1790
Pencil Cave	1790 – 1800
Big Lime	1800 – 1910
Keener Sand	1910 – 1940
Big Injun	1940 – 1988
Shale	1988 – 1990
Red Rock	1990 – 2108
=== = = = = = = = = = = = = = = = = = =	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013	
API #:	47-017-06027	

Farm name: Dotson, Rendal J. & Sandra	_ Operator Well	No.: Trout Unit	1H	
LOCATION: Elevation: 880'	_ Quadrangle: F	Folsom 7.5'		
District: McClellan	County: Dodd	ridge		
Latitude: 10388' Feet South of 39 Deg.	25 Min	.00 Sec		
Longitude 11025 Feet West of 80 Deg	32 Min	. <u>30</u> Sec).	
Company Antero Resources Appalachian Corp				
Company.	Casing &	Used in	Left in well	Cement fill
Address: 1625 17th Street	Tubing	drilling	401	up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft.
Agent: CT Corporation System	13 3/8" 48#	887'	887'	1232 Cu. Ft. Class A
Inspector: Sam Ward	9 5/8" 36#	2790'	2790'	1136 Cu. Ft. Class A
Date Permit Issued: 7/12/2011	5 1/2" 20#	16243'	16243'	3980 Cu. Ft. Class H
Date Well Work Commenced: 7/12/2012			ļ	
Date Well Work Completed: 11/19/2012				
Verbal Plugging: N/A			<u> </u>	
Date Permission granted on: N/A	2 3/8" 4.7#	7179'		
Rotary Cable Rig				
Total Vertical Depth (ft): 7070' TVD				
Total Measured Depth (ft): 16243' MD				
Fresh Water Depth (ft.): 132'				
Salt Water Depth (ft.): 1160'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 53', 110', 225', 383', 454', 492'	-			
Void(s) encountered (N/Y) Depth(s) None		<u> </u>		
OPEN FLOW DATA (If more than two producing format	tions please inclu	ide additional d	lata on separate	sheet)
Producing formation Marcellus Pay	y zone depth (ft)	bl/d	,P , ·	
Gas: Initial open flowMCF/d Oil: Initial open Final open flow 9137 MCF/d Final open flow	NA BI	bl/d		
Time of open flow between initial and final tests N/A				,
Static rock Pressure ³⁸⁰⁰ psig (surface pressure)				
Second producing formationPay 2		11/1		
Gas: Initial open flow MCF/d Oil: Initial open		sbl/d bl/d		
Final open flow MCF/d Final open flo				
Time of open flow between initial and final tests				
I certify under penalty of law that I have personally examine	d and am familia	r with the info	rmation submitte	ed on this document
all the attachments and that, based on my inquiry of those in	dividuals immed	iately responsil	ble for obtaining	the information I b
that the information is true, accurate, and complete.			, 1	$\mathcal{I}_{\mathcal{I}_{\mu,\mu}}$, $\mathcal{I}_{\mathcal{I}_{\mu,\mu}}$
Sha L	L	1	124/12	The Man
Signature	,		Date	•

	V	uttings caught during drilling? Yes X No
Were core samples taken? Yes		
_	1 1 41-to-smallO If-	yes, please list Yes - CBL,
This is a subsequent well. Antero only runs wireline logs on the first of	well on a multi-well pad (R. Swiger South Unit 1H, API# 47-017-050	yes, prease 1131 392). Please reference the wireline logs submitted with Form WR-35 for R. Swiger South Unit 1H.
NOTE: IN THE AREA BELOV FRACTURING OR STIMULATIN DETAILED GEOLOGICAL REC COAL ENCOUNTERED BY THE	CODD OF THE TOPS AND BO). DETAILS OF PERFORATED INTERVALS, E). THE WELL LOG WHICH IS A SYSTEMATIC TOMS OF ALL FORMATIONS, INCLUDING TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Sti	mulating:	
Perforations: 7285'-16182' (187	'2 holes)	oter corning 964 300# 100 mesh.
Frac'd w/ 13,500 gals 15% HC	L Acid, 190,877 bbis Slick Wa	ater carrying 964,300# 100 mesh,
3,607,300# 40/70 and 1,935,9	00# 20/40 sand.	
-,,		
Plug Back Details Including Plug Typ	be and Depth(s): N/A	
	Tan Donth	Bottom Depth
Formations Encountered:	Top Depth	
Surface:		
m. 11	1763'	1845'
Big Lime est	1846'	2294'
Big Injun est	2295'	2415'
Gantz Sand est	2416'	2501'
Fifty Foot Sandstone est	2502'	2808'
Gordon est	2809'	2846'
Fifth Sandstone est	2847'	3604'
Bayard est	3605'	4056'
Speechley est	4057'	4314'
Balltown est	4315'	4789'
Bradford est	4315 4790'	5142'
Benson est	4790 5143'	5948'
Alexander est		5954'
Elk est	5949'	6405'
Rhinestreet	5955'	6623'
Sycamore	6406'	6729'
Middlesex	6624'	6778'
Genundewa	6730'	6805'
Burket	6779'	6879'

68061

6880'

6929'

Tully

Hamilton

Marcellus

68791

6928'

7070' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013
API#:	47-017-06028

Farm name: Dotson, Rendal J. & Sandra	Operator Well Quadrangle: F	No.: Trout Unit	2H 	 .
LOCATION: Elevation: 880'				
District: McClellan	County: Doddr	idge		
Latitude: 10379' Feet South of 39 Deg. 2				
Longitude 11009' Feet West of 80 Deg. 3	32 <u>Min.</u>	30 Sec	•	
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	26" 94#	23'	23'	118 Cu. F
Agent: CT Corporation System	20" 133#	40'	40'	38 Cu. Ft. Clas
Inspector: Sam Ward	13 3/8" 48#	844'	844'	1172 Cu. Ft. Cla
Date Permit Issued: 7/12/2011	9 5/8" 36#	2765'	2765'	1197 Cu. Ft. Clas
Date Well Work Commenced: 7/29/2012	5 1/2" 20#	16257'	16257'	3991 Cu. Ft. Cla
Date Well Work Completed: 12/1/2012				
Verbal Plugging: N/A		-		
Date Permission granted on: N/A	2 3/8" 4.7#	7396'		
Rotary Cable Rig				
Total Vertical Depth (ft): 7091' TVD				
Total Measured Depth (ft): 16243' MD				
Fresh Water Depth (ft.): est. 132'				
Salt Water Depth (ft.): 880'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): est. 53', 110', 225', 383', 454', 492'				
Void(s) encountered (N/Y) Depth(s) None				
OPEN FLOW DATA (If more than two producing formation	ons please inclu zone depth (ft)	de additional d 3946' TVD (To	ata on separate : n)	sneet)
Producing formation Marcellus Pay z	one depui (it)	bl/d		
Gas: Initial open flow MCF/d Oil: Initial open flow 8844 MCF/d Final open flow	N/A Bb			
Time of open flow between initial and final tests N/A	Hours			
Static rock Pressure ³⁸⁰⁰ psig (surface pressure) af				
· · · · · · · · · · · · · · · · · · ·				
	ne depth (ft)	L1/4		
Gas: Initial open flow MCF/d Oil: Initial open flow		b1/d 1/d		
Final open flow MCF/d Final open flow				
Time of open flow between initial and final tests				.,
Static rock Pressurepsig (surface pressure) at	1100	••		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Were core samples taken? YesNo	X Were cu	nttings caught during drilling	? YesXNo
Were core samples taken?			
Were Electrical, Mechanical or Geophysica This is a subsequent well. Antero only runs wireline logs on the first well on	al logs recorded on this well? If y a multi-well pad (R. Swiger South Unit 1H, APH 47-017-058)	yes, please list 100 92). Please reference the wireline logs submitted wi	th Form WR-35 for R. Swiger South Unit 1H.
NOTE: IN THE AREA BELOW I FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOR COAL ENCOUNTERED BY THE WE	PUT THE FOLLOWING: 1) PHYSICAL CHANGE, ETC. 2 PLOFE THE TOPS AND BO	DETAILS OF PERFO THE WELL LOG WHICH TOMS OF ALL FORM	RATED INTERVALS, CH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stimul			
Perforations: 7517'-16191' (1800 h	noles)	oter carrying 966.600#	 100 mesh,
Frac'd w/ 13,000 gals 15% HCL A	ACID, 187,763 DDIS SIICK VVE	ater carrying cocycon.	
3,606,200# 40/70 and 2,121,100#	‡ 20/40 sand.		
Plug Back Details Including Plug Type a	nd Depth(s): N/A		
			_
Formations Encountered:	Top Depth		Bottom Depth
Surface:			
	47621	1845'	
Big Lime est	1763'	2294'	•
Big Injun est	1846'	2415'	
Gantz Sand est	2295'	2501'	
Fifty Foot Sandstone est	2416'	2808'	
Gordon est	2502'		
Fifth Sandstone est	2809'	2846'	e du
Bayard est	2847'	3604'	
Speechley est	3605'	4056'	. •
	4057'	4314'	
Balltown est	4315'	4885'	
Bradford est	4886'	5153'	
Benson	5154'	5357'	
Alexander	5358'	5960'	اجذب
Elk	5961'	6403'	
Rhinestreet	6404'	6631'	
Sycamore	640 4 6632'	6790'	
Middlesex		6817'	
Burket	6791'	6892'	
Tully	6818'	6945'	
Hamilton	6893'	7091' TVD	۷. ۸
Marcellus	6946'	7031 140	600

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Penert of Well Work

DATE:	1/14/2013
API #:	47-017-06079

arm name: Davis, Jonathan	Operator Well No.: Valentine Unit 2H			
OCATION: Elevation: 1159'	_ Quadrangle: <u>V</u>	Vest Union 7.5'		
District: Central	County: Doddr		···	
Latitude: 10,547 Feet South of 39 Deg.				
Longitude 12,378 Feet West of 80 Deg	. <u>47</u> Min.	30 Se	c.	
Company: Antero Resources Appalachian Corp.	I o e	Used in	Left in well	Cement fill
Address: 1625 17th Street	Casing & Tubing	drilling	Left in well	up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft Class A
Agent: CT Corporation System	13-3/8" 48#	664'	664'	922 Cu. Ft Class A
Inspector: Sam Ward	9-5/8" 36#	2610'	2610'	1063 Cu. Ft Class A
Date Permit Issued: 3/30/2012	5-1/2" 20#	14321'	14321'	3506 Cu. Ft Class H
Date Well Work Commenced: 6/29/2012				
Date Well Work Completed: 10/22/2012				
Verbal Plugging: N/A	<u></u>			
Date Permission granted on: N/A	2-3/8" 4.7#	7134'		
Rotary Cable Rig				
Total Vertical Depth (ft): 6816' TVD				
Total Measured Depth (ft): 14321' MD				
Fresh Water Depth (ft.): est. 161', 286'	ļ			
Salt Water Depth (ft.): est. 780', 837'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): est. 824', 828'				-
Void(s) encountered (N/Y) Depth(s) No, N/A		<u> </u>		
OPEN ELOW DATA (If more than two producing format	zone depth (ft)_ flow_N/A B www_N/A Bt Make Hours	6680, 1AD (1	data on separate op)	sheet)
Second producing formation Pay z	one denth (A)			
Second producing formation Pay z Gas: Initial open flow MCF/d Oil: Initial open		bl/d		
Final open flow MCF/d Final open flo	owBl	ol/d		
Time of open flow between initial and final tests				·v,
Static rock Pressure psig (surface pressure)	afterHou	ırs		nuod coe

Were core samples taken? YesNo	Were c	outtings caught during drilling? Yes X NoNo
		vec place list Yes - CBL
Were Electrical, Mechanical or Geophysica	All logs recorded on this Well? II I on a multi-well pad (Valentine Unit 1H, API# 47-017-0)	yes, piedse 1151 6083). Please reference the wireline logs submitted with Form WR-35 for Valentine Unit 1H.
THIS S & SUBSCIPLING STOP		
EDACTUDING OF STIMULATING F	PHYSICAL CHANGE, ETC. 2 D OF THE TOPS AND BO). DETAILS OF PERFORATED INTERVALS, 2). THE WELL LOG WHICH IS A SYSTEMATIC ITTOMS OF ALL FORMATIONS, INCLUDING TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimula	ating:	
Perforations: 7241'-14,255' MD (14	16 holes)	
Frac'd w/ 11,000 gals 15% HCL Ac	oid, 154,773 bbls Slick Wa	ter carrying 811,000# 100 mesh,
2,811,700# 40/70 and 1,590,000#		
Plug Back Details Including Plug Type and	d Depth(s): N/A	
Ting Dack Details Including 2 to 3770		
		Pottom Donth
Formations Encountered: Surface:	Top Depth	/ Bottom Depth
Big Lime est.	2,066'	2,176'
Big Injun est.	2,177'	2,574'
Gantz Sand est.	2,575'	2,717'
Fifty Foot Sandstone est.	2,718'	2,808'
Gordon est.	2,809'	3,122'
Fifth Sandstone est.	3,123'	3,147'
Bayard est.	3,148'	3,911'
Speechley est.	3,912'	4,176'
Balltown est.	4,177'	4,621'
Bradford est.	4,622'	5,063'
Benson est.	5,064'	5,324'
Alexander est.	5,325'	5,507'
Elk est.	5,508'	6,004'
	6,005'	6,313'
Rhinestreet	6,314'	6,484'
Sycamore	6.485'	6,610'

6,485'

6,611

6,671'

6,680'

Middlesex

Marcellus

Burket

Tully

6,670'

6,679' 6,818' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/24/2013	
API #:	47-017-06083	

ON: Elevation: 1159'	Quadrangle: <u>W</u>	rest Union 7.5		
District: Central	_ County: Doddri	dge		
Latitude: 10,556 Feet South of 39 Deg	3. 20 Min.			
Longitude 12,382' Feet West of 80 De	g. 47 Min.	<u> </u>		
Antero Resources Appalachian Corp.				
Company: Antero Resources Apparational Corp.	Casing &	Used in	Left in well	Cement fill
Address: 1625 17th Street	Tubing	drilling		up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft Class A
Agent: CT Corporation System	13-3/8" 48#	670'	670'	931 Cu. Ft Class A
Inspector: Sam Ward	9-5/8" 36#	2626'	2626'	1450 Cu. Ft Class A
Date Permit Issued: 5/23/2012	5-1/2" 20#	14210'	14210'	3471 Cu. Ft Class I
Date Well Work Commenced: 6/29/2012				
Date Well Work Commenced.				
Date Well Work Completed.				
verbai Plugging:	2-3/8" 4.7#	6665'		
Date Permission granted on: N/A	2-3/0 4.1#			1
Rotary Cable Rig				
Total Vertical Depth (ft): 6817' TVD				
Total Measured Depth (ft): 14210' MD				
Fresh Water Depth (ft.): est. 161', 286'				
Salt Water Depth (ft.): est. 780', 837'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): est. 824', 828'				
Void(s) encountered (1V 1) Departs)				
N FLOW DATA (If more than two producing form	ations please incluay zone depth (ft)	ide additional d 6673' TVD (To	ata on separate	sheet)
	ay zone depth (It)	Bbl/d	• •	
ias: Initial open flow MCF/d Oil: Initial open Final open flow WOPL MCF/d Final open	flow N/A B	bl/d		
Time of open flow between initial and final tests				
tatic rock Pressure 3600 psig (surface pressure	e) afterHor	urs		
	zone depth (ft)	N-1/4		
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open		3bl/d ·bl/d		
Time of open flow between initial and final tests Static rock Pressurepsig (surface pressure				
Static rock Pressurepsig (surface pressure y under penalty of law that I have personally exami				

No No Were c	Were cuttings caught during drilling? Yes NoNo						
cal logs recorded on this well? If	yes, please list Yes - CBL, Photo Density/						
PHYSICAL CHANGE, ETC. 2 RD OF THE TOPS AND BO). DETAILS OF PERFORATED INTERVAL 2). THE WELL LOG WHICH IS A SYSTEMATI TTOMS OF ALL FORMATIONS, INCLUDIN TO TOTAL DEPTH.						
lating:							
	ter carrying 778,200# 100 mesh,						
20/40 sand.							
nd Depth(s): N/Δ							
- 11///							
	, Dattaus Danth						
Top Depth	/ Bottom Depth						
2,066'	2,176'						
2,177'	2,574'						
2,575'	2,717'						
2,718'	2,808'						
2,809'	3,122'						
3,123'	3,147'						
3,148'	3,911'						
3,912'	4,176'						
4,177'	4,621'						
4,622'	5,063'						
5,064'	5,324'						
5,325'	5,507'						
5,508'	5,998'						
5,999'	6,306'						
6,307'	6,479'						
6,480'	6,601'						
6,602'	6,632'						
6,633'	6,672'						
6,673'	6,817' TVD						
	Top Depth 2,066' 2,177' 2,575' 2,718' 2,809' 3,123' 3,148' 3,912' 4,177' 4,622' 5,064' 5,325' 5,508' 5,999' 6,307' 6,480' 6,602' 6,633'						

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11-28-2012
API#:	47-029-00141

Farm name: Allison HNK 3H M				Operator Well No.: 834412							
LOCATION: Elevation: 1275'			Quadran	ngle: East Live	erpool South						
District: Clay			County:	Hancock							
Latitude: 1520'	Feet South of 40	Deg.		Min. 30	Sec.						
I anaituda 14600'	Feet West of 80	Deg		Min 30	Sec						

Company: Chesapeake Appalachia, L.L.C.				
Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	13 3/8"	662'	662'	735 Cu. Ft.
Agent: Eric Gillespie	9 5/8"	1525'	1525'	696 Cu. Ft.
Inspector: Bill Hendershot	5 1/2"	8309'	8309'	2122 Cu. Ft.
Date Permit Issued: 1-18-2012				
Date Well Work Commenced: 4-29-2012				
Date Well Work Completed: 7-30-2012				ļ
Verbal Plugging:		ļ	ļ	
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 5175' (cement plug @ 3720'-5175')				
Total Measured Depth (ft): 8309'				
Fresh Water Depth (ft.): 500'				
Salt Water Depth (ft.): 795'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 585'				
Void(s) encountered (N/Y) Depth(s) N			<u> </u>	

OPEN FLOW DATA (If more the	han two producing formations pl	ease include a	dditional data on separate sheet)
Producing formation West Fa	lis Pay zone	depth (ft)_4,550-	
Gas: Initial open flow	_MCF/d Oil: Initial open flow_	Bbl/d	
Final open flow 1.161*	_MCF/d Final open flow 5	Bbl/d	*Calculated
Time of open flow between	n initial and final tests 239	Hours	2013
Static rock Pressure 3,001*	psig (surface pressure) after	Hours	100 100 100 100 100 100 100 100 100 100
Second producing formation		pth (ft)	
Gas: Initial open flow	_MCF/d Oil: Initial open flow_	Bbl/d	
Final open flow		Bbl/d	
	en initial and final tests	Hours	
Static rock Pressure	_psig (surface pressure) after _	Hours	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlone Williams
Signature

Were core samples taken? Yes X	No Were	cuttings caught during drilling?	/esXNo
Were Electrical, Mechanical or Geophysi	cal logs recorded on this well? I	f yes, please list	
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOI COAL ENCOUNTERED BY THE WI	PHYSICAL CHANGE, ETC. RD OF THE TOPS AND BO	2). THE WELL LOG WHICH OTTOMS OF ALL FORMAT	IS A SYSTEMATI
Perforated Intervals, Fracturing, or Stimu	lating:		
(See attached)			
Plug Back Details Including Plug Type ar	^{id Depth(s):} (cement plug (② 3720'-5175')	
Formations Encountered: Surface:	Top Depth	/ E	ottom Depth
(See attached)			
		······	

PERFORATION RECORD ATTACHMENT

Well Number and Name: 834412 Allison HNK 3HM

PERFO	PRATION RE	CORD	STIMULATION RECORD							
	Interval F	Perforated				Fluid		Propp	Average	
Date	From	То	Date	Interval	Treated	Type	Amount	Туре	Amount	Injection
7/27/2012	7,849	8,212	7/27/2012	7,849	8,212	Sik Wtr	5,777	Sand	532,304	86
7/27/2012	7,435	7,798	7/27/2012	7,435	7,798	Sik Wtr	5,739	Sand	529,683	87
7/28/2012	7,021	7,384	7/28/2012	7,021	7,384	Sik Wtr	5,949	Sand	529,442	86
7/28/2012	6,607	6,970	7/28/2012	6,607	6,970	Sik Wtr	6,397	Sand	530,130	87
7/28/2012	6,193	6,556	7/28/2012	6,193	6,556	Sik Wtr	6,627	Sand	516,999	83
7/29/2012	5,779	6,142	7/29/2012	5,779	6,142	Sik Wtr	6,423	Sand	527,378	86
7/29/2012	5,365	5,728	7/29/2012	5,365	5,728	Sik Wtr	5,896	Sand	533,846	87
7/30/2012	4,951	5,314	7/30/2012	4,951	5,314	Sik Wtr	6,248	Sand	587,686	86
								<u> </u>		
<u></u>			ļ						<u> </u>	
ļ					· ·	· · ·	-			
										
 			····							
			 							
										

Vertical

Formation/Lithology	TVD Top	MD Top	TVD Bottom	MD Bottom		
Pennsylvanian Unconsolidated	0'	0'	615'	615'		
Big Injun SS	615'	615'	690'	690'		
Shale	690'	690'	1300'	1300'		
Berea SS	1300'	1300'	1375'	1375'		
Shale	1375'	1375'	3800'	3800'		
Java Shale	3800'	3800'	4200'	4200'		
West Falls Fm.	4200'	4200'	4950'	4950'		
Tully Limestone	4950'	4950'	4988'	4988'		
	4988'	4988'	5070'	5070'		
Hamilton Shale Marcellus Shale	5070'	5070'	5100'	5100'		
		5100'				
Onondaga Limestone	5100'	5100	-4	5175'		
Pilot TD			5175'	31/3		
<u>Horizontal (from</u> <u>Mudlogs)</u>						
Pennsylvanian Unconsolidated	0'	0,	615'	615'		
Big Injun SS	615'	615'	690'	690'		
Shale	690'	690'	1300'	1300'		
Berea SS	1300'	1300'	1375'	1375'		
Shale	1375'	1375'	3800'	3800'		
Java Shale	3800'	3800'	4200'	4200'		
West Falls Fm.	4550!	5096'				
Well TD			4618'	8254'		
Tully Limestone	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated		
Hamilton Shale	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated		
Marcellus Shale	Not Penetrated	Not Penetrated	Not Penetrated	Not Penetrated Not Penetrated		
Onondaga Limestone	Not Penetrated	Not Penetrated	Not Penetrated	NOT PEHELIATED		

WR - 35			St	ate of We	st Virgi	nia		- 1	7.0	ate:		Cantan		
Rev (5-01)		D	epartment	of Enviro	nmenta	I Protection		Į.::		1#:	- 2	Septem 170330	Der 5, 2	2007 DIA Z
1		1	O	ffice of Oi	i and G	as			<u> </u>	<u>- " - 1</u>		70000	4033-	TAVV
ĺ			Well Oper	erators Re	port of	Well Work								
Í	L	OCATION		7										
Į.	Form Now -													
	Farm Name:	<u>B</u>	eth Wilson		J	Operato	ors well i	name:		Re	ctor-3	(Re-Worl	()	7
1	Elevation:	1103	۵ [uadrangle:	Wolf	Summit	Distri	~ C	lark	,				J 7
ļ			_				Distri	<u> </u>	a K	ן ע	ounty:	Har	rison	J
ì	Latitude:	14750	Feet South		39	Deg. 17		. 30	Sec					
	Longitude:	6230	Feet West	of	80	Deg. 22	2 Min	. 30	Sec	•				
1	C	OMPANY	1	1						1				
1	Reed Gas, Inc.				·									
1	1314 Virginia Stre	et East				Operator #:		44000	_					
	Charleston, WV	25301				Operator #.		41350						
Agent: Jar	nes W. Reed Jr.			Cäsi	10 R	Markey Professor	e pier.	aca seeming	unio untili in	39.7737	· · · · · · · · · · · · · · · · · · ·			
	n Bennett			Tub	ina	Used in Drill	ng	Left in W	eli 🗀			Cement		
Date Permit Issue	ed:		8/29/08	13		20	essapres a	20	Ft	<u> </u>	Sks	· · · · · ·		ent Top
Date Well Work (8/7/09	9 5		280	+-	280	Ft		110			Surface
Date Well Work (Completed:		9/5/09	7		1467		1467	Ft		200			Surface Surface
Total Depth (feet)			6940	41/	2 "	6928		6928	Ft		260		103	ourrace
Rotary Rig: X	Cable Rig:	···		Tub	ing		_		Ft	Ту		· · · · ·	,	
	14 1 1 2 1				差点			岩岩岩	<u> </u>			3 <u>E</u> 5	1	
	Verbal Plugging	. 1		Fresh Wa	ter Dept	h (feet):			7	:	5241	* 125 A.		
Date	Permission Grante	<u>a:</u>	ليسبسا	Salt Water				504						
				is coal be	ing mine	ed in area ?		No				÷		
	OPEN	FLOW DATA										i.e.i		
	1 Produ	icing formation	Me Me Salay		В	enson		T	Pay 7	one de	pth (ft)		4224	4- 4452
	Gas:	Initial C	Open Flow:			MCF/d	Oil:	i Init	ial Ope				8bl/d	to 4453
		Final C	Open Flow:	* See Re	marks	MCF/d			al Ope				Bbl/d	
		Static rock	nressure:	en flow bety	veen initi	ial and final test	s:	hours					•	
.="	Part Control	icing formation		 		after		hours						
	Gas:	Initial C	pen Flow:			MCF/d				Pay	zone d	epth (ft):		to 3237
			open Flow:	* See Re		MCF/d	Oil:		Initial	Open F	low:		Bbl/d	
			Time of ope			al and final test	s:	hours	LINE	Open F	-low:		Bbl/d	
*		Static rock	pressure:			after		hours						
		cing formation			Spe	eechley		T		Pav	zone d	epth (ft):	2013	to 3009
	Gas:		pen Flow:			MCF/d	Oil:	l	Initial			epar (it).	Bbl/d	10 3003
			pen Flow:	* See Re		MCF/d		_	Final	Open F	low:		Bbl/d	
		Static rock		en flow betw	veen initia	al and final test	s:	hours						
		Claud lock	pressure.	<u> </u>		aner	4	nours						
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			DEC	EIVE	h									
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			1	700		H 95 - 1								
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	NOTE: ON BACK OF THIS F	ORM PUT THE FOLL	OWING: 1) DETA	NLS OF PERFOR	RATED INTE	RVALS, FRACTURING MATIONS,INCLUDING	OR STIMU	LATING, PHY	SICAL CH	ANGE, ET	C. 2) THE	WELL LOG	WHICH	1
							EIVC	JUNIENEU I	<u>., ine W</u>	LLEUKE	-			<u> </u>
		Signed: _												
									•					
		Bv:		Jam	ies W	Reed .lr								
	•	By: _ Date:		Jam	es W.	Reed, Jr.								

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013	
API #:	47-033-05584	

Farm name: Hurst, Clara Mae, et al	Operator Well No.: Findley Unit 1H	
LOCATION: Elevation: 1172'	Quadrangle: West Milford	
District: Union Latitude: 10571' Longitude 7815'	Feet South of 39 Deg. 12 Min. 30 Sec. Feet West of 80 Deg. 27 Min. 30 Sec.	

Company: Antero Resources Appalachian Corp 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address:	20" 94#	40'	40'	38 Cu. Ft.
Denver, CO 80202	13 3/8" 48#	587'	587'	815 Cu. Ft. Class A
Agent: CT Corporation System	9 5/8" 36#	2692'	2692'	1096 Cu. Ft. Class A
Inspector: Tristan Jenkins	5 1/2" 20#	15630'	15630'	3841 Cu. Ft. Class H
Date Permit Issued: 1/11/2012	0 .,2 20			
Date Well Work Commenced: 3/9/2012				
Date Well Work Completed: 12/2/2012		 		
Verbal Plugging: N/A		70001		
Date Permission granted on: N/A	2 3/8" 4.7#	7239'		
Pig Pig	1	 		
m + 1 Warting Donth (ft): 7507' TVD (deepest p	oint drilled)	ļ		
Total Measured Depth (ft): 7157' TVD (BHL), 150	634' MD			
Fresh Water Depth (ft.): 301'				
Salt Water Depth (ft.): 1053'				
Is coal being mined in area (N/Y)? N				_
Coal Depths (ft.): 80', 144', 200'				
Void(s) encountered (N/Y) Depth(s) None				

I	
Void(s) encountered (N/Y) Depth(s) None	
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay z Gas: Initial open flow MCF/d Oil: Initial open flow Final open flow 6026 MCF/d Final open flow Time of open flow between initial and final tests N/A Static rock Pressure 3600 psig (surface pressure) af	low N/A Bbl/d N/A Bbl/d Hours
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure psig (surface pressure) a	Bbl/d Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

24/13 Date

No X	Were cu	ttings caught during drillin	g? Yes X No
Were core samples taken? YesNo_X			
Were Electrical, Mechanical or Geophysical log	gs recorded on this well? If y	es, please list	mitted with Form WR-35 for Sayler Unit 2H.
Were Electrical, Mechanical or Geophysical log This is a subsequent well. Antero only runs wireline logs on the first well on a	multi-well pad (Sayler Unit 2H, AP!# 47-033-05	583). Piease relevance are through	
NOTE: IN THE AREA BELOW PUT FRACTURING OR STIMULATING, PHY	THE FOLLOWING: 1)	. DETAILS OF PERF). THE WELL LOG WH TOMS OF ALL, FOR	ORATED INTERVALS, IICH IS A SYSTEMATIC MATIONS, INCLUDING
FRACTURING OR STIMULATING, PHY DETAILED GEOLOGICAL RECORD COAL ENCOUNTERED BY THE WELLI	BORE FROM SURFACE T	O TOTAL DEPTH.	,
Perforated Intervals, Fracturing, or Stimulating	;		
Perforations: 7389'-15565' (1,728 hole	es)	ter corning 894 200±	£ 100 mesh.
Perforations: 7389'-15565' (1,726 Hole Frac'd w/ 12,500 gals 15% HCL Acid	, 175,971 bbls Slick vva	ter carrying 034,200	100 1110011,
3,245,300# 40/70 and 1,889,600# 20	/40 sand.		
Plug Back Details Including Plug Type and D	epth(s): N/Δ		
Plug Back Details including 1 lag 13pe and 2	THE TOTAL		
			Bottom Depth
Formations Encountered:	Top Depth		Bottom Deptii
Surface:			
	1682'	2149'	
Big Lime	2150'	2246'	
Fifty Foot Sandstone	2247'	2533'	
Gordon	2534'	2590'	
Fifth Sandstone	2591'	3228'	
Bayard	3229'	3482'	
Speechley	3483'	4003'	
Balltown	4004'	4621'	
Bradford	4622'	4850'	
Benson	4851'	5002'	
Alexander	5003'	6389'	
Elk	6390'	6610'	

6611'

6798'

6825'

6937'

7002'

6797'

6824'

6936

7001'

7507' TVD

Sycamore

Middlesex

Tully Hamilton

Marcellus

Burket

Office of On a Case

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013	
API #:	47-033-05585	

Farm name: Hurst, Clara Mae, et al	_ Operator Well	No.: Findley Of	III ZII	
LOCATION: Elevation: 1172	_ Quadrangle: <u>V</u>	Vest Milford		
District: Union	County: Harris	on		
Latitude: 10561' Feet South of 39 Deg	g. <u>12</u> Min.			
Longitude 7817 Feet West of 80 De	g. <u>27</u> Min.	30 Sec	C.	
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fil up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu.
Agent: CT Corporation System	13 3/8" 48#	628'	628'	872 Cu. Ft. Cl
Inspector: Tristan Jenkins	9 5/8" 36#	2780'	2780'	1132 Cu. Ft. C
Date Permit Issued: 1/25/2012	5 1/2" 20#	15510'	15510'	3781 Cu. Ft. Cl
Date Well Work Commenced: 3/9/2012				
Date Well Work Completed: 11/19/2012				
Verbal Plugging: N/A				
Date Permission granted on: N/A	2 3/8" 4.7#	7262'		
Rotary Cable Rig				
Total Vertical Depth (ft): 7145' TVD				
Total Measured Depth (ft): 15510' MD				
Fresh Water Depth (ft.): 195'				
Salt Water Depth (ft.): 726', 1090				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 80', 144', 200'				
Void(s) encountered (N/Y) Depth(s) None				
		أمسم أخاله أمام	data on congrate	cheet)
OPEN FLOW DATA (If more than two producing form: Producing formation Marcellus Page 1	ations please inclu	6977' TVD (T	on)	Silecty
Gas: Initial open flowMCF/d Oil: Initial open	n flow N/A B	8bl/d		
Final open flow 9175 MCF/d Final open f	low N/A BI	bl/d		
Time of open flow between initial and final tests		S		
Static rock Pressure 3600 psig (surface pressure) afterHou	ırs		
Second producing formationPay	zone depth (ft)			
Gas: Initial open flowMCF/d Oil: Initial open		Bbl/d		
Final open flow MCF/d Final open f		bl/d		
Time of open flow between initial and final tests_	Hour	S		
Static rock Pressurepsig (surface pressure) afterHo	urs		

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information is true, accurate, and complete.

Signature

Date

Were core samples taken? Yes ?	No X Were cuttings caught d	luring drilling? YesNo_^			
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes - CBL,					
Were Electrical, Mechanical or Geophysi This is a subsequent well. Antero only runs wireline logs on the first	cal logs recorded on this well? If yes, please list_ t well on a multi-well pad (Sayler Unit 2H, API# 47-033-05583). Please reference the	he wireline logs submitted with Form WR-35 for Sayler Unit 2H.			
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECO	PUT THE FOLLOWING: 1). DETAILS PHYSICAL CHANGE, ETC. 2). THE WELL RD OF THE TOPS AND BOTTOMS OF A ELLBORE FROM SURFACE TO TOTAL DE	LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING			
Perforated Intervals, Fracturing, or Stimu	lating:				
Perforations: 7298'-15444' (1,728					
Frac'd w/ 12,500 gals 15% HCL /	Acid, 173,252 bbls Slick Water carrying	841,100# 100 mesh,			
3,175,300# 40/70 and 1,885,000	# 20/40 sand.				
Plug Back Details Including Plug Type a	nd Depth(s): N/A				
-					
	To Double /	Bottom Depth			
Formations Encountered: Surface:	Top Depth /	Bottom Deptin			
Surface.					
Big Lime est.	1682'	2149'			
Fifty Foot Sandstone est.	2150'	2246'			
Gordon est.	2247'	2533'			
Fifth Sandstone est.	2534'	2590'			
Bayard est.	2591'	3228'			
Speechley est.	3229'	3482'			
Balltown est.	3483'	4003'			
Bradford est.	4004'	4621'			
Benson est.	4622'	4850'			
Alexander est.	4851'	5002'			
Elk est.	5003'	6389'			
	6390'	6610'			
Sycamore Middlesex	6611'	6797'			
	6798'	6824'			
Burket	6825'	6936'			
Tully	6937'	7001'			
Hamilton	7002'	7145' TVD			
Marcellus	/ 002	, 2.0			

Marcellus

OHO DAY

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/24/2013	
API#:	47-033-05591	

n name: Mountain Lakes Limited	_ Operator Well 1			
CATION: Elevation: 1386'	Quadrangle: W	est Millord		
District: Union	County: Harriso	onn	· · · · · ·	
I atitude: 3180' Feet South of 39 De	g. 15Min.	00Sec		
Longitude 9628' Feet West of 80 De	g. <u>27</u> Min.	30 Sec	·•	
Company: Antero Resources Appalachian Corp		Used in	Left in well	Cement fill
1625 17th Street	Casing & Tubing	drilling	Bott in won	up Cu. Ft.
Address:	20" 94#	41'	41'	38 Cu. Ft. Class A
Denver, CO 80202	13 3/8" 48#	543'	543'	754 Cu. Ft. Class A
Agent: CT Corporation System	9 5/8" 36#	2571'	2571'	1047 Cu. Ft. Class A
Inspector: Tristan Jenkins	5 1/2" 23#	14172'	14172'	3477 Cu. Ft. Class H
Date Permit Issued: 1/24/2012	5 1/2 23#	14172		1
Date Well Work Commenced: 6/20/2012		 	 	
Date Well Work Completed: 11/13/2012		<u> </u>	 	
Verbal Plugging: N/A				
Date Permission granted on: N/A	2 3/8" 4.7#	7161'		
Rotary Cable Rig				
Rotaly Cable				
Total Vertical Depth (ft): 7179' TVD				
Total Measured Depth (ft): 14172' MD				
Fresh Water Depth (ft.): est. 50', 90' 111'				
Salt Water Depth (ft.): None available				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 270', 545', 645'			_	
Void(s) encountered (N/Y) Depth(s) None				
	mations please inc	lude additiona	l data on separate	e sheet)
OPEN FLOW DATA (It more than two producing for	Pay zone depth (ft	<u>)7141' TV</u> D (*	Гор)	
G. Juisial open flow MCF/d Oil: Initial of	pen flow <u>N/A</u>	Bbl/d		
Gas: Initial open flowMCF/d Oil: Initial open flow 4811MCF/d Final open	n flow N/A	Bbl/d		
Time of open flow between initial and final test	s N/AHou	ırs		
Static rock Pressure 3600 psig (surface pressu	re) after He	ours		
Static rock Pressure 3600 psig (surface pressu				
Second producing formation P	ay zone depth (ft)_			
Second producing formation		_Bbl/d		
Gus. III vp	n flow	Bbl/d		
Final open flow MCF/d Final open	ts Ho	urs		
Time of open flow between initial and final tes	ure) after H	ours		
Static rock Pressurepsig (surface pressurepsig				

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate and complete.

Signature

Signature

	V	gs caught during drilling? Yes X No_	
Were core samples taken? YesNo			
Were Electrical, Mechanical or Geophysics Photo Density/ Compensated Neutron/ Gamma Ray and D	al logs recorded on this well? If yes, p	olease list Yes - CBL,	
NOTE: IN THE AREA BELOW I FRACTURING OR STIMULATING, I DETAILED GEOLOGICAL RECOR COAL ENCOUNTERED BY THE WE	PHYSICAL CHANGE, ETC. 2). II	MS OF ALL FORMATIONS, INCL.	IVALS, MATIC UDING
Perforated Intervals, Fracturing, or Stimul	ating:		
Perforations: 7580'-14406' (1368 h	ioles)	coo 400# 100 mash	
Frac'd w/ 9,576 gals 15% HCL Ac	id, 135,719 bbls Slick Water c	arrying 699, 100# 100 mesh,	
2,712,240# 40/70 and 1,644,440#	20/40 sand.		
		·	
Plug Back Details Including Plug Type an	nd Depth(s): N/A		
Plug Back Details illetiding 1 lag 1390 and	The state of the s		
		Bottom Depth	1
Formations Encountered:	Top Depth		•
Surface:			
	1756'	1863'	
Big Lime	1864'	2149'	
Big Injun	2150'	2251'	•
Gantz Sand	2252'	2369'	
Fifty Foot Sandstone	2370'	2660'	
Gordon	2661'	2715'	
Fifth Sandstone	2716'	3346'	
Bayard		3587'	
Speechley	3347'	4098'	
Balltown	3588'	4677'	
Bradford	4099'	4873'	
Benson	4678'	5225'	
Alexander	4874'	5225 6748'	
Elk	5226'	-	
Sonyea	6749'	6761'	
Middlesex	6762'	6832'	
West River Shale	6833'	6882'	
	6883'	6941'	
Genundewa	6942'	6949' _.	
Burket	6950'	7064'	
Tully	7065'	7140'	
Hamilton	7141'	7179' TVD	

7065' 7141'

Marcellus

Miles of Line 2 to Miles

WR	-35	
Rev	(9-1)	1)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013
API #:	47-033-05593

Farm name: Mountain Lakes Limited		Operator Well	No.: Kermit Un	eit 1H	
LOCATION: Elevation: 1386		Quadrangle: _	West Milford		
District: Union		County: Harris	son		
Latitude: 3201'	Feet South of 39	Deg. 15 Min		с.	
	Feet West of 80	Deg. 27 Min	. <u>30</u> Se	c.	
Company: Antero Resor	urces Appalachian Cor		1	l x 0 :	Cement fill
Address: 1625 17th St	reet	Casing & Tubing	Used in drilling	Left in well	up Cu. Ft.
Denver, CO 80202	·	20" 94#	40'	40'	38 Cu. Ft. Class
Agent: CT Corporation	System	13 3/8" 48#	529'	529'	735 Cu. Ft. Class
Inspector: Tristan Je	enkins	9 5/8" 36#	2580'	2580'	1050 Cu. Ft. Class
Date Permit Issued: 2/2	8/2012	5 1/2" 23#	13959'	13959'	3415 Cu. Ft. Class
Date Well Work Commer	nced: 7/24/2012				
Date Well Work Complete	4.4.00.4.0				
Verbal Plugging:	N/A				
Date Permission granted	on: N/A	2 3/8" 4.7#	7331'		
Rotary Cable	Rig				
Total Vertical Depth (fi): 7204' TVD (deepe	st point drilled)	· 		
Total Measured Depth (ft): 7122' TVD (BHL)	, 13959' MD	· 		
Fresh Water Depth (ft.):					
Salt Water Depth (ft.):					
Is coal being mined in ar	ea (N/Y)? N				
Coal Depths (ft.): 191', 2					
Void(s) encountered (N/	Y) Depth(s) None		·		
OPEN FLOW DATA (If more Producing formation Marce Gas: Initial open flow Final open flow 9053 Time of open flow betw Static rock Pressure 3600	than two producing follows MCF/d Oil: Initial MCF/d Final opeen initial and final tempsig (surface press	_Pay zone depth (ft) open flow N/A E en flow N/A B sts N/A Hour sure) after Ho	<u>7166' TV</u> D (To Bbl/d bl/d s	data on separate op)	sheet)
Second producing formation		Pay zone depth (ft))hl/d	•	
Gas: Initial open flow	MCF/d Oil: Initial MCF/d Final or	- F	Bbl/d bl/d		
Time of open flow betw Static rock Pressure	een initial and final te	stsHour	rs		

I certify under penalty of the have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Were core samples taken? YesNo	X Were cut	ttings caught during drilling? Yes X	No
Were core samples taken?			
Were Electrical, Mechanical or Geophysical This is a subsequent well. Antero only runs wireline logs on the first well	logs recorded on this well? If y	es, please list	R-35 for Kermit Unit 3H.
This is a subsequent well. Antero only runs wireline logs on the first well	Jon a multi-waii pad (Keimit Olittan), 72 iii 47		
NOTE: IN THE AREA BELOW POST OF THE PROPERTY OF THE PROPERTY OF THE WEIL OF TH	OF THE TOPS AND ROT	TOMS OF ALL FORMATIONS	INTERVALS, SYSTEMATIC , INCLUDING
Perforated Intervals, Fracturing, or Stimula	ting:		
Perforations: 7490'-13893' (1344 ho	oles)	tor corning 603 308# 100 mes	 sh.
Perforations: 7490-13893 (1344 No. Frac'd w/ 10,080 gals 15% HCL Ac	cid, 133,786 bbls Slick vva	ter carrying 033,000ii 100 iii.c.	
2,612,985# 40/70 and 1,641,350#	20/40 sand.		
2,012,000			
	1 D-14h(a): 01/4		
Plug Back Details Including Plug Type an	a Deptn(s): N/A		
	Top Depth	/ Botto	m Depth
Formations Encountered:			
Surface:		1002	
Big Lime est.	1756'	1863' 2149'	
Big Injun est.	1864'	2251'	
Gantz Sand est.	2150'	2369'	
Fifty Foot Sandstone est.	2252'	2660'	
Gordon est.	2370'	2715'	
Fifth Sandstone est.	2661'	3346'	
Bayard est.	2716'	3587'	
Speechley est.	3347'	4098'	
Balltown est.	3588'	•••	
Bradford est.	4099'	4677'	
	4678'	4873'	
Benson est.	40741	5225'	

4874'

5226'

6471'

6750'

6826'

6944'

6970'

70861

7166'

Alexander est.

West River Shale

Elk est.

Sonyea

Burket

Hamilton

Marcellus

Tully

Sycamore

6470'

6749'

6825'

6843'

6969'

7085'

7165'

7204' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013	
API#:	47-033-05594	

Farm name: Mountain Lakes Limited	Operator Well	No.: Kermit Unit	2H	
LOCATION: Elevation: 1386'	Quadrangle: W	est Milford		
District: Union Latitude: 3198' Feet South of 39 Deg. 1 Longitude 9622' Feet West of 80 Deg. 2	County: Harrisco	ooSec.		
Company: Antero Resources Appalachian Corp	Casing &	Used in	Left in well	Cement fill
Address: 1625 17th Street	Tubing	drilling	441	up Cu. Ft.
Denver, CO 80202	20" 94#	41'	41'	735 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	529'	529'	
Agent.	9 5/8" 36#	2589'	2589'	1658 Cu. Ft. Class A
Inspector: Tristan Jenkins Date Permit Issued: 2/28/2012	5 1/2" 23#	13805'	13805'	3370 Cu. Ft. Class H
Date Well Work Commenced: 6/18/2012				
Date Well Work Completed.				
Verbal Plugging:	2 3/8" 4.7#	7276'		
Date Permission granted on.				
Rolary Carlo TVD Ideanost po	oint drilled)	1		
Total Vertical Depth (ft): 7198 TVD (deepest per Total Measured Depth (ft): 7157' TVD (BHL), 138	05' MD	T		
Total Measured Depth (II): 725 April 111'				
Fresh Water Depth (ft.): est. 50', 90', 111' Solt Water Depth (ft.): None available				
Sait Water Depart (117)				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 270', 545', 645'				
Void(s) encountered (N/Y) Depth(s) None				
and the same during forms	flow N/A	Bbl/d Bbl/d	data on separat (op)	e sheet)

Time of open flow between initial and final tests N/A

Static rock Pressure 3600

Second producing formation_

Gas: Initial open flow_____

Final open flow____

Time of open flow between initial and final tests ______Hours

Static rock Pressure ______psig (surface pressure) after _____Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Pay zone depth (ft)_

Bbl/d

Bbl/d

Signature

psig (surface pressure) after _____Hours

MCF/d Oil: Initial open flow____

_MCF/d Final open flow _____

1124/13

are core samples taken? Yes NO	Were cutt	ings caught during drilling? Yes X No	
ere core samples taken? YesNo_X	and an this well? If ve	s, please list Yes - CBL	is I I als 3h
Vere Electrical, Mechanical or Geophysical lo	ogs recorded on this well: 11 ye	Please reference the wireline logs submitted with Form WR-35 for Kern	itt Unit 3r
NOTE: IN THE AREA BELOW PUT FRACTURING OR STIMULATING, PH DETAILED GEOLOGICAL RECORD COAL ENCOUNTERED BY THE WELL	TORC AND ROT	TOMS OF ALL FURNIATIONS, MICE	MAT UDIN
Perforated Intervals, Fracturing, or Stimulatin	ng:		
Perforations: 7328'-13739' (1320 hole Frac'd w/ 10,584 gals 15% HCL Acid	es)	er carrying 680.390# 100 mesh,	
rac'd w/ 10,584 gals 15% HCL Acid	d, 132,394 bbis Slick Wat	er carrying cos,	
2,600,934# 40/70 and 1,603,910# 2	20/40 sand.		
2,000,004111 10.11			
	Double(c): ALIA		
Plug Back Details Including Plug Type and	Depth(s): N/A		
riug Duok 2 chart			
riug Duon 2 out			
Flug Back Details			
		/ Bottom Dep	<u>th</u>
	Top Depth	/ Bottom Dep	<u>th</u>
Formations Encountered: Surface:		/ Bottom Dep	<u>th</u>
Formations Encountered:	Top Depth	1863'	t <u>h</u>
Formations Encountered: Surface: Big Lime est.	Top Depth	1863' 2149'	t <u>h</u>
Formations Encountered: Surface: Big Lime est.	Top Depth 1756' 1864'	1863' 2149' 2251'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est.	Top Depth 1756' 1864' 2150'	1863' 2149' 2251' 2369'	th
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est.	Top Depth 1756' 1864' 2150' 2252'	1863' 2149' 2251' 2369' 2660'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est.	Top Depth 1756' 1864' 2150' 2252' 2370'	1863' 2149' 2251' 2369' 2660' 2715'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661'	1863' 2149' 2251' 2369' 2660' 2715' 3346'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716'	1863' 2149' 2251' 2369' 2660' 2715'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347'	1863' 2149' 2251' 2369' 2660' 2715' 3346'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est. Speechley est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347' 3588'	1863' 2149' 2251' 2369' 2660' 2715' 3346' 3587'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est. Speechley est. Balltown est.	1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347' 3588' 4099'	1863' 2149' 2251' 2369' 2660' 2715' 3346' 3587' 4098'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est. Speechley est. Balltown est. Bradford est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347' 3588' 4099' 4678'	1863' 2149' 2251' 2369' 2660' 2715' 3346' 3587' 4098'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est. Speechley est. Balltown est. Bradford est. Benson est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347' 3588' 4099' 4678'	1863' 2149' 2251' 2369' 2660' 2715' 3346' 3587' 4098' 4677'	t <u>h</u>
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est. Speechley est. Balltown est. Bradford est. Benson est. Alexander est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347' 3588' 4099' 4678' 4874' 5226'	1863' 2149' 2251' 2369' 2660' 2715' 3346' 3587' 4098' 4677' 4873' 5225' 6749'	t h
Formations Encountered: Surface: Big Lime est. Big Injun est. Gantz Sand est. Fifty Foot Sandstone est. Gordon est. Fifth Sandstone est. Bayard est. Speechley est. Balltown est. Bradford est. Benson est.	Top Depth 1756' 1864' 2150' 2252' 2370' 2661' 2716' 3347' 3588' 4099' 4678'	1863' 2149' 2251' 2369' 2660' 2715' 3346' 3587' 4098' 4677' 4873' 5225'	t <u>h</u>

6832'

69321

6960'

7085'

7159'

Middlesex

Hamilton

Marcellus

Burket

Tully

West River Shale

6959'

7084'

7158'

7198' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/14/2013	
API#:	47-033-05638	

ION: Elevation: 1201'	Quadrangle: V	Vest Milford		
District: Union	County: Harrison			
Latitude: 8763' Feet South of 39 Deg.	15 Min.	00 See		
Longitude 541' Feet West of 80 Deg.	25 Min.	. <u>00</u> Sec	€.	
Antero Resources Appalachian Corp				
Company: Antero Resources Apparachian Corp	Casing &	Used in	Left in well	Cement
Address: 1625 17th Street	Tubing	drilling	Lett III well	up Cu.
Denver, CO 80202	20" 94#	40'	40'	38 C
Agent: CT Corporation System	13 3/8" 48#	593'	593'	824 Cu. Ft
Inspector: Tristan Jenkins	9 5/8" 36#	2554'	2554'	1040 Cu. F
Date Permit Issued: 6/14/2012	5 1/2" 20#	16549'	16549'	4135 Cu. F
Date Well Work Commenced: 6/25/2012				
Date Well Work Completed: 11/10/2012				
Verbal Plugging: N/A				
Date Permission granted on: N/A	2 3/8" 4.7#	7135'		
Rotary Cable Rig				
Total Vertical Depth (ft): 7011' TVD				
Total Measured Depth (ft): 16565' MD				ļ <u>.</u>
Fresh Water Depth (ft.): 40'				
Salt Water Depth (ft.): None available				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Pad constructed on reclaimed PHG strip bench				
Void(s) encountered (N/Y) Depth(s) None				
N FLOW DATA (If more than two producing formatic Producing formation Marcellus Pay 2	zone depth (ft) <u>6</u>	de additional d 853' TVD (To bl/d	lata on separate p)	sheet)
Final open flow 11640 MCF/d Final open flow				
Time of open flow between initial and final tests N/A	Hours			
tatic rock Pressure 3600 psig (surface pressure) af	terHou	rs		
econd producing formation Pay 20	ne depth (ft)			
Gas: Initial open flow MCF/d Oil: Initial open flow		bl/d		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

1/14/13 Date

Were core samples taken? Yes	_ No Were	cuttings caught during drilling	? Yes No
Were Electrical, Mechanical or Geophy	usical logs recorded on this well?	fyes please list Yes - CBL	
This is a subsequent well. Antero only runs whetline logs on the	First well on a multi-well pad (Wagner Unit 1H, API# 47-033	05465). Please reference the wireline logs submitte	ed with Form WR-35 for Wagner Unit 1H.
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL REC COAL ENCOUNTERED BY THE	G, PHYSICAL CHANGE, ETC. ORD OF THE TOPS AND BO	2). THE WELL LOG WHIC OTTOMS OF ALL FORM	CH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stir	nulating:		
Perforations: 7242'-16483' (216	0 holes)		
Frac'd w/ 17,750 gals 15% HCl	Acid, 194,348 bbls Slick W	ater carrying 954,909# 1	00 mesh,
3,601,801# 40/70 and 2,152,70	7# 20/40 sand.		
Plug Back Details Including Plug Type	and Depth(s): N/A		
Formations Encountered: Surface:	Top Depth		Bottom Depth
Big Lime est.	1453'	1564'	
Big Injun est.	1565'	1972'	
Fifty Foot Sandstone est.	1973'	2115'	
Gordon est.	2116'	2382'	
Fifth Sandstone est.	2383'	2435'	
Bayard est.	2436'	3089'	
Speechley est.	3090'	3305'	
Balltown est.	3306'	3815'	
Bradford est.	3816'	4482'	
Benson est.	4483'	4786'	
Alexander est.	4787'	5013'	
Elk est.	5014'	5541'	
Rhinestreet est.	5542'	6428'	
	6429'	6532'	
Middlesex West River Shale	6533'	. 6628'	
	6629'	6656'	
Burket		6852'	
Tully	6657'	7011' TVD	
Marcellus	6853'	\011 IAD	



Date: 10/6/2010 API# 47-097-03689

State of West Virginia **Division of Environmental Protection** Section of Oil and Gas Well Operator's Report of Well Work

Dale Winfree 3H Farm Name:

Operator Well No.:

831580

LOCATION

Quadrangle: County:

Rock Cave Upshur

District: Latitude:

Elevation:

Banks 6350 ft

1961'

South of

50° 00"

38° 30" Longitude: 5600 ft West of 176 80°

Company: Chesapeake Appalachia, L.L.C.

P.O. Box 18496

OKC, OK 73154-0496

Agent: Eric Gillespie Inspector: Bill Hatfield

Date Permit Issued: 11/12/2009

Date Well work commenced: 1/15/2010 Date Well Work completed: 9/23/2010

Verbal Plugging Permission

Granted on / /

Rotary ⊠ Cable Rig

TVD (ft): 7214' Total Depth (ft):11,446'

Fresh Water Depth (ft): 475' Salt Water Depth (ft.): 1,161'

Is coal being mined in area (Yes \(\square\) No \(\square\)

Coal Depths (ft): None

Was this well logged and plugged back?

Yes___No___ if yes depth cement plug set _

Casing &	Used in	Left in	Cement Fill-Up
Tubing	Drilling	Well	Cu.Ft.
20'	70'	70'	Driven
13 3/8"	602'	602'	670 CF
9 5/8"	1853'	1853'	814 CF
7"	7550'	7550'	632 CF
4 ½' liner	11,446'	11,446'	483 CF
		RE(EIVED
		Ulline o	FOII 3 Gas

JAN 1 7 2013

WV Department of **Environmental Protection**

Onen I	ไดง	Data
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1 st Producing Gas:	Initial Open Flow Final Open Flow	Pay Zo 2,276 Mcf/day N/A Mcf/day ctween Initial and Final Tests	Oil:	h 7,483 ft to 11,325 ft Initial Open Flow Final Open Flow hours	bbl/day bbl/day
	Static Rock Pressure	3,246 psig after N/A	Line	hours	

ft to ft Pay Zone Depth 2nd Producing Formation bbl/day Oil: Initial Open Flow Gas: Initial Open Flow N/A Mcf/day bbl/day Final Open Flow N/A Mcf/day Final Open Flow hours Time of Open Flow between Initial and Final Tests hours Static Rock Pressure N/A psig after ft

Pay Zone Depth ft to 3rd Producing Formation

bbl/day Initial Open Flow Oil: Gas: Initial Open Flow N/A Mcf/day Final Open Flow bbl/day Final Open Flow N/A Mcf/day

Time of Open Flow between Initial and Final Tests hours hours Static Rock Pressure N/A psig after

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Chesapeake Energy Well No.: 831580

Perforated Intervals

1 st Stage	Marcellus	50	holes from	11,083 ft to	11,325 ft
2 nd Stage	Marcellus	50	holes from	10,783 ft to	11,025 ft
3 rd Stage	Marcellus	50	holes from	10,478 ft to	10,725 ft
4th Stage	Marcellus	50	holes from	10,178 ft to	10,425 ft
5 th Stage	Marcellus	50	holes from	9,878 ft to	10,125 ft
6 th Stage	Marcellus	50	holes from	9,588 ft to	9,825 ft
7 th Stage	Marcellus	50	holes from	9,288 ft to	9,525 ft
8th Stage	Marcellus	50	holes from	8,983 ft to	9,225 ft
9 th Stage	Marcellus	50	holes from	8,683 ft to	8,925 ft
10 th Stage	Marcellus	50	holes from	8,383 ft to	8,625 ft
11th Stage	Marcellus	50	holes from	8,083 ft to	8,325 ft
12 th Stage	Marcellus	50	holes from	7,783 ft to	8,025 ft
13 th Stage	Marcellus	50	holes from	7,483 ft to	7,725 ft

Fracturing / Stimulation

1 st Stage	Ту		(041	
	Total Acid 5,000 Gal of 15			essure 6,941 psi
	Average Rate 80 scf/min	or bpm 🛛	ATP 6,653 psi	MTP 8,990 psi
	Total Fluid 7,104 bbl	Total Nitrogen 0 scf	Total Sand 82,	,023 lb of 100 mesh
			Total Sand 269	9,435 lb of 40/70
	ISIP 2,220 psi	5 min 0 psi		
2 nd Stage		Type of Treatment Slick	water	<u></u>
	Total Acid 2,500 Gal of 15	% HCl		essure 6,584 psi
	Average Rate 87 scf/min	or bpm 🛛	ATP 7,635 psi	MTP 9,005 psi
	Total Fluid 8,961 bbl	Total Nitrogen 0 scf	Total Sand 80,	481 lb of 100 mesh
			Total Sand 322	2,715 lb of 40/70
	ISIP 3,734 psi	5 min 2,908 psi		
3 rd Stage		Type of Treatment Slick	water	
	Total Acid 2,500 Gal of 159	% HCl Breakdown Pro		essure 5,674 psi
	Average Rate 87 scf/min	or bpm 🛛		MTP 8,640 psi
	Total Fluid 9,218 bbl	Total Nitrogen 0 scf		306 lb of 100 mesh
			Total Sand 317	7,033 lb of 40/70
	ISIP 0 psi	5 min 2,932 psi		
4 th Stage		Type of Treatment Slick	water	
	Total Acid 2,500 Gal of 159		Breakdown Pro	essure 8,019 psi
	Average Rate 83 scf/min	or bpm 🗵		MTP 9,120 psi
	Total Fluid 9,634 bbl	Total Nitrogen 0 scf	Total Sand 81,	000 lb of 100 mesh
	2000		Total Sand 322	2,136 lb of 40/70
	ISIP 3,526 psi	5 min 2,987 psi		
5 th Stage		Type of Treatment Slickwater		
<u> </u>	Total Acid 2,500 Gal of 159	% HCl	Breakdown Pro	essure 7,401 psi
	Average Rate 86 scf/min	or bpm 🛛		MTP 8,647 psi
	Total Fluid 8,724 bbl	Total Nitrogen 0 scf	Total Sand 80,	718 lb of 100 mesh
			Total Sand 321	,655 lb of 40/70
	ISIP 3,743 psi	5 min 3,138 psi		
6 th Stage		Type of Treatment Slick	water	
	Total Acid 2,500 Gal of 159	% HCl	Breakdown Pro	essure 7,383 psi
	Average Rate 90 scf/min	or bpm 🛛		MTP 8,874 psi
	Total Fluid 8,725 bbl	Total Nitrogen 0 scf		307 lb of 100 mesh
			Total Sand 321	,175 lb of 40/70
	ISIP 3,840 psi	5 min 3,173 psi		

Lade Wisher 3H

HORIZONTAL WELL (No		d with this pad)	· · · · · · · · · · · · · · · · · · ·	
Maximum TVD of wellbore:	7214 ft TVD @ 11446 ft MD			
Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS and SH	0	0	530	530
SS and SH	530	530	1556	1556
Big Lime	1556	1556	1600	1600
SS and SILTSTN	1600	1600	1767	1767
Big Injun	1767	1767	1810	1810
SS and SILTSTN	1810	1810	2590	2590
SILTSTN	2590	2590	3750	3750
SILTSTN and SS	3750	3750	5250	5250
SS and SH	5250	5250	5475	5475
SILTSTN and SH	5475	5475	6700	6670
SH and LS	6700	6670	7090	7052
Geneseo	7090	7052	7136	7085
Tully	7136	7085	7173	7109
Hamilton	7173	7109	7346	7193
Marcellus	7346	7193	7475	7230
Purcell	7475	7230		
End of Well			11446	7214

Date: API#

10/20/2010 47-097-03690

State of West Virginia **Division of Environmental Protection** Section of Oil and Gas Well Operator's Report of Well Work

Operator Well No.: 831572 Dale Winfree 5H Farm Name: Quadrangle: Rock Cave LOCATION Elevation: 1961' County: District: Banks 50' 00" 6337 ft South of Latitude: 38° 17' 30" 5595 ft West of Longitude: 80° Cement Fill-Up Left in Casing & Used in Company: Chesapeake Appalachia, L.L.C. Well Cu.Ft. Tubing Drilling P.O. Box 18496 <u>60°</u> Driven 20" 60' OKC, OK 73154-0496 541 CF 600' 13 3/8" 600' Agent: Eric Gillespie Inspector: Bill Hatfield 937 CF 1858' Date Permit Issued: 11/10/2009 9 5/8" 1858 Date Well work commenced: 1/29/2010 7" 7750' 683 CF 7750' Date Well Work completed: 9/25/2010 Verbal Plugging Permission 584 CF 4 1/2" liner 11,995 11,995 Granted on / / Rotary ⊠ Cable Rig Total Depth (ft): 11995 TVD (ft): 7233' Fresh Water Depth (ft): 475' Office of Oil 3 Gas Salt Water Depth (ft.):NA Is coal being mined in area (Yes 🔲 No 🖾) Coal Depths (ft): None JAN A 7 2013 Was this well logged and plugged back? if yes -Yes No depth cement plug set _ WV Department of Open Flow Data Environmental Protection Pay Zone Depth 7,549 ft to 11,869 ft 1st Producing Formation Initial Open Flow bbl/day 1,611 Mcf/day Oil: Gas: Initial Open Flow bbl/day Final Open Flow N/A Mcf/day Final Open Flow Time of Open Flow between Initial and Final Tests hours Ĭn Line hours 3,255 psig after N/A Static Rock Pressure ft Pay Zone Depth ft to 2nd Producing Formation bbl/day N/A Mcf/day Oil: Initial Open Flow Gas: Initial Open Flow bbl/day Final Open Flow N/A Mcf/day Final Open Flow Time of Open Flow between Initial and Final Tests hours Static Rock Pressure N/A psig after hours ft ft to Pay Zone Depth 3rd Producing Formation bbl/day Initial Open Flow Oil: N/A Mcf/day Gas: Initial Open Flow bbl/day Final Open Flow N/A Mcf/day Final Open Flow hours

hours

Time of Open Flow between Initial and Final Tests

N/A psig after

Static Rock Pressure

Chesapeake Energy Well No.: 831572

Perforated Intervals

racturing / S	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dreakdoum Dree	Breakdown Pressure 6,789 psi			
8-	Total Acid 5,000 Gal of 159	Total Acid 5,000 Gal of 1570 Tel				
	Average Rate 83 scf/min	or bom IXI	ATP 7,506 psi	115 lb of 100 mesh		
	Total Fluid 8,368 bbl	Total Nitrogen 0 scf	Total Sand 331,	227 lb of 40/70		
			TOTAL SAIR 331,	ZZ 10 OZ -IOI IV		
	ISIP 3,986 psi	5 min 2,652 psi				
2 nd Stage		Type of Treatment Slicky	Breakdown Pre	coure 6 201 nsi		
Z Diago	Total Acid 2,500 Gal of 150	% HCl	Breakdown Fre	MTP 8,549 psi		
	Average Rate 81 scf/min	lor bom IXI	A1P 7,420 psi	,000 lb of 100 mesh		
	Total Fluid 7,979 bbl	Total Nitrogen 0 scf	Total Sand 321	,507 lb of 40/70		
			Total Salid 321	,307 10 01 10,70		
	ISIP 3,200 psi	5 min 2,491 psi				
3 rd Stage		Type of Treatment Slicky	water Dro	ssure 8,180 psi		
3 Blage	Total Acid 2,500 Gal of 15	% HCl	I RIESKOOWII PU	MTP 9,121 psi		
	Average Rate 74 scf/min		ATP 6,948 psi	,886 lb of 100 mesh		
	Total Fluid 9,257 bbl	Total Nitrogen 0 scf	Total Sand 80	067 lb of 40/70		
	100000000000000000000000000000000000000		Total Sand 324	,067 lb of 40/70		
	ISIP 3,729 psi	5 min 2,789 psi				
4 th Stage		Type of Treatment Slick	water	essure 7,582 psi		
4 Stage	Total Acid 2,500 Gal of 15	5% HCl	I RIESKOOWIL LI	MTD 0 263 nei		
	Average Rate 86 scf/min		ATP 7,021 psi	ATP 7,021 psi MTP 9,263 psi Total Sand 80,411 lb of 100 mesh		
	Total Fluid 9,098 bbl	Total Nitrogen 0 scf	Total Sand 80	0,411 lb of 100 most		
			Total Sand 320	0,057 lb of 40/70		
	ISIP 3,650 psi	5 min 2,705 psi				
5th Stage		Type of Treatment Slick	water	essure 6,372 psi		
3 Stage	Total Acid 2,500 Gal of 1	5% HCl	I RESKOOWILEI	MTP 8,994 psi		
	Average Rate 87 scf/min	or box 12	ATP 7,000 psi	0,277 lb of 100 mesh		
	Total Fluid 8,464 bbl	Total Nitrogen 0 scf	Total Sand of	0,576 lb of 40/70		
			10tal Sand 32	T		
	ISIP 4,084 psi	5 min 3,000 psi				
6th Stage		Type of Treatment Slick	water Designation De	ressure 5,383 psi		
U Stage	Total Acid 2,500 Gal of 1	5% HCl	Breakdown F	MTP 8 782 nsi		
	Average Rate 87 scf/min		ATP 0, /03 ps	i MTP 8,782 psi 0,380 lb of 100 mesh		
	Total Fluid 7,667 bbl	Total Nitrogen 0 scf	Total Sand 6	3,992 lb of 40/70		
	10.00		Total Sand 32	1		
<u> </u>	ISIP 3,786 psi	5 min 3,042 psi		J		

7th Stage		Type of Treatment Slick	water (
7 Glage	Total Acid 2,500 Gal of 15	% HCl	Breakdown Pro	essure 5,870 psi	
	Average Rate 89 scf/min	or bpm 🛛	ATP 7,115 psi	MTP 8,774 psi	
	Total Fluid 7,383 bbl	Total Nitrogen 0 scf	Total Sand 81	,124 lb of 100 mesl	
			Total Sand 321	,629 lb of 40/70	
	ISIP 3,610 psi	5 min 2,801 psi			
8th Stage		Type of Treatment Slick	water		
o blage	Total Acid 2,500 Gal of 15	% HCl	Breakdown Pro	essure 5,755 psi	
	Average Rate 89 scf/min	or bpm 🛛	ATP 6,750 psi	MTP 8,875 psi	
	Total Fluid 7,618 bbl	Total Nitrogen 0 scf	Total Sand 80	,212 lb of 100 mesl	
			Total Sand 320),587 lb of 40/70	
	ISIP 3,822 psi	5 min 2,995 psi			
9 th Stage		water			
	Total Acid 2,500 Gal of 15	% HCl	Breakdown Pr	Breakdown Pressure 6,124 psi	
	Average Rate 86 scf/min	or bpm 🛛	ATP 6,810 psi	MTP 8,580 psi	
	Total Fluid 7,843 bbl	Total Nitrogen 0 scf	Total Sand 81,078 lb of 100 m		
			Total Sand 273	3,959 lb of 40/70	
	ISIP 3,818 psi	5 min 2,895 psi			
10th Stage	1011 3,515 55	Type of Treatment Slickwater		<u> </u>	
10 Singo	Total Acid 2,500 Gal of 15	% HCl	HCl Breakdown Pr		
	Average Rate 87 scf/min	or bpm 🛛	ATP 7,110 psi	MTP 8,239 psi	
	Total Fluid 7,472 bbl	Total Nitrogen 0 scf	Total Sand 80	0,230 lb of 100 mes	
			Total Sand 33:	3,833 lb of 40/70	
	ISIP 3,393 psi	5 min 2,472 psi			
11th Stage		Type of Treatment Slick	water		
11 Otago	Total Acid 2,500 Gal of 15	% HCl	Breakdown Pr	essure 6,109 psi	
	Average Rate 89 scf/min	or bpm 🔀	ATP 6,681 ps	MTP 8,546 psi	
· · · · · · · · · · · · · · · · · · ·	Total Fluid 7,717 bbl	Total Nitrogen 0 scf	Total Sand 8	1,177 lb of 100 mes	
			Total Sand 32	1,159 lb of 40/70	
	ISIP 3,433 psi	5 min 2,809 psi		1	

Well Log

Well Log			
Well Log Formation Name	Тор	Bottom	Comments
Geneseo	7060'	7094'	All depths KBTVD
Tully Hamilton	7094'	7118'	
Hamilton	7118'	7203'	
Marcellus	7203'		
	 		
	<u> </u>		
	 		
	 		
<u> </u>	 	 	
	 		
	 		
			
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Signed:	CHESAPEAKE APPALACHIA, LLC
•	CHESAPEAKE APPALACHIA, LLC
By:	/AL UDEN
Date:	10/20/2010

Dan Winfice SH

HORIZONTAL WELL (No		d with this pad)		
Maximum TVD of	7235 ft TVD @			
wellbore:	11995 ft MD			
Formation/Lithology	Top Depth, MD	Top Depth, TVD	Bottom Depth,	Bottom Depth,
rormation/Litilology	(ft)	(ft)	MD (ft)	TVD (ft)
LS and SH	0	0	530	530
SS and SH	530	530	1556	1556
Big Lime	1556	1556	1600	1600
SS and SILTSTN	1600	1600	1767	1767
Big Injun	1767	1767	1810	1810
SS and SILTSTN	1810	1810		2590
SILTSTN	2590	2590		3750
SILTSTN and SS	3750	3750		5250
SS and SH	5250	5250		5475
SILTSTN and SH	5475	5475		6670
SH and LS	6700	6670		7052
Geneseo	7090	7052	7251	7096
Tully	7251	7096	7285	7120
Hamilton	7285	7120	7424	
Marcellus	7424	7206	7523	7249
Purcell	7523	7249		
End of Well			11995	7235

State of West Virginia

		Division of Envir Section of			ection	\bigcirc					
Section of Oil and Gas Well Operator's Report of Well Work											
Farm name:	DALLISON	LUMBER, INC.	Operator Well No.: L.S. HOYT 99								
LOCATION:	Elevation:	1000'	Quad	irangle:	PINE GRO	VE 7.5'					
	District: Latitude: Longitude:	GRANT 12,350 Feet south of 9,700 Feet west of		nty: WE Deg 37 Deg 37		Sec.					
Company:	EAST RESOURCES, INC. P.O. BOX 5519 VIENNA, WV 26105-5519			Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.				
Agent:	PHILIP S. O	NDRUSEK									
Inspector: DAVID SCRANAGE Permit Issued: 01/29/10 Well work Commenced: 03/18/10 Well work Completed: 03/19/10 Verbal plugging											
permission granted on: Rotary X Cable Rig Total Depth (feet) 2953' 8 5/8" 875' 875' 360 sks											
Fresh water dep	ths (ft)	NA		4 1/2"	2903.63'	2903.63'	275 sks				

J	P	Έľ	V	\mathbf{F}	LO	W	D	AΊ	Ά
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Is coal being mined in area (Y/N)

Salt water depths (ft)

Coal Depths (ft):

* WATERFLOOD INJECTOR

NA

NA

Produc	ing formation	Gorde	on	Pay zon	e depth (ft)	2873	'-2882'
Gas:	Initial open flow	*	MCF/d	Oil: Initial open f	flow	*	Bbl/d
	Final open flow	*	MCF/d	Final open fl	low	*	Bbl/d
	Time of open flow	between initial	and fina	ıl tests	•	Hours	
Static r	ock pressure		_psig (su	rface pressure)	after		Hours
Second	producing formation			Pay zon	ne depth (ft)		
Gas:	Initial open flow	•	MCF/d	Oil: Initial open i	flow		Bbl/d
	Final open flow		MCF/d	Final open fl	low		Bbl/d
	Time of open flow	between initial	and fina	al tests	•	Hours	
Static r	ock pressure		psig (su	rface pressure)	after		Hours
OR STIMULATIN	OF THIS FORM, PUT THE IG, PHYSICAL CHANGE ECORD OF ALL Office of (, etc. 2) the we was includin) ? Gas	LL LOG W NG COAL I	HICH IS A SYSTEM	IATIC DETA	LED	iG
	FEB 0 6			· Go	- Belle 10/15/1	0	
	WV Deparements	tment of al Protection			•		

Treatment:

Treated perfs. 2872'-2882' w/ 250 gals. 15% HCl acid, 414 bbls cross linked gel, and 16,000 # 20/40 sand.

Well Log:

SEE ORIGINAL WELL RECORD

State of West Virginia Division of Environmental Protection

Section of Oil and Gas

COPY	7
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		Well Operator's	Repor	rt of Well	Work			\ / /
Farm name:	DALLISON	LUMBER COMPANY	Ope	rator Well	No.: L.S. H			€#
LOCATION:	Elevation:	1,314'	Qua	drangle:	PINE GRO	VE 7.5'		
	District: Latitude: Longitude:	CENTER 3,100 Feet south of 4,500 Feet west of		Deg 37		Sec.		
Company:	P.O. BOX 55	OURCES, INC. 519 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Fi	ement ll Up u. Ft.
Agent:	PHILIP S. O	NDRUSEK						
Inspector: Permit Issued:	DAVID SCR	02/04/10						
Well work Com Well work Com Verbal plugging	pleted:	03/10/10 03/12/10						
permission gran Rotary <u>X</u> Total Depth (fe	Cable			8 5/8"	1275'	1275'	365	sks
Fresh water dep	, ,	NA NA		4 1/2"	3321.90'	3321.90'	275	sks
				ļ 				
Is coal being mi Coal Depths (ft		/N) NA N						
OPEN FLOW I	DATA	* WATERFLOOD INJE	ECTOR					
Produc	ing formation	Gordon	1		Pay zone de	epth (ft)	3273'-3	3282'
Gas:	Initial open	low * N			al open flow	7	*	Bbl/d
	Final open fi	ow representation of the control of	MCF/d		d open flow	Hours	<u> </u>	_Bbl/d
Static 1	rock pressure			urface pre	ssure)	after		Hours
Second	d producing fo	rmation			Pay zone de	epth (ft)		
Gas:	Initial open	flowN			al open flow	<i>i</i>		Bbl/d
	Final open f		MCF/d		al open flow			Bbl/d
Static	Time of op rock pressure	en flow between initial a		al tests urface pre	ssure)	Hours		Hours
NOTE: ON BACK	OF THIS FORI NG, PHYSICAL ECORD OF THE	M, PUT THE FOLLOWING: 1) CHANGE, ETC. 2) THE WELL CHANGE, ETC. 2) THE W	LLOGV	WHICH IS A	SYSTEMAT	IC DETAILED	TURING	 }
•	_	For: EAST F By:	RESOU	JRCES, IN	Ba	Solden		
E	WV Dep	Date: artment of tal Protection	. —		<i>/</i>	0/157/0		<u></u>

Treatment:

Treated perfs. 3273'-3282' w/ 250 gals. 15% HCl acid, 385 bbls cross linked gel, and 17,500 # 20/40 sand.

Well Log:

SEE ORIGINAL WELL RECORD

State of West Virginia Division of Environmental Protection Section of Oil and Gas

		Well Operato	r's Repor	t of Well \	Work	- (M
Farm name:	DALLISON	LUMBER COMPANY	Oper	ator Well	No.: L.S. H	OYT 109	•	
LOCATION:	Elevation:	1,314'	Quad	lrangle:	PINE GRO	VE 7.5'	•	
	District: Latitude: Longitude:	CENTER 3,050 Feet south 4,550 Feet west		nty: WET Deg 37 Deg 37		Sec. Sec.		
Company:	P.O. BOX 5	OURCES, INC. 519 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Cen Fill Cu.	Up
Agent:	PHILIP S. O	NDRUSEK					1	
Inspector: Permit Issued: Well work Con Well work Con Verbal pluggin	npleted:	RANAGE 01/29/10 03/10/10 03/12/10						
permission graders. Rotary X Total Depth (fee	nted on:Cableeet)	Rig 3626' MD		8 5/8"	1270'	1270'	545	sks
Fresh water dept		NA NA		4 1/2"	3485.95'	3485.95'	275	sks
Is coal being m Coal Depths (f	•	7/N) NA N						
OPEN FLOW	DATA	* WATERFLOOD II	NJECTOR					
	cing formation		don		Pay zone de		3426'-34	
Gas:	Initial open Final open f		_MCF/d _MCF/d		al open flow al open flow			Bbl/d Bbl/d
		en flow between initia			ir open now	Hours		
Static	rock pressure			ırface pre	ssure)	after		Hours
	d producing fo				Pay zone d		•	
Gas:	Initial open Final open f		_MCF/d MCF/d		ial open flov al open flow			Bbl/d Bbl/d
		en flow between initia			at oben mow	Hours		Dona
Static	rock pressure			urface pre	essure)	after		Hours
OR STIMULATI	NG, PHYSICAL	M, PUT THE FOLLOWING CHANGE, ETC. 2) THE WELLOWING INCLUDE TO THE WELLOWING INCLUDE TO THE WELLOWING THE PASS TO THE WELLOWING THE PASS TO THE WELLOWING THE PASS TO THE PASS TO THE PASS THE PASS TO THE PASS THE	ÆLL LOG V	WHICH IS A ENCOUNT	A SYSTEMAT ERED BY TH	IC DETAILED	CTURING	·
	FEB 0	5 2013 By:	<u></u>		The	Nelder		
	IAN / Po -	Dat	te:			70/15/10		
Er	WV Depai vironmenta	tment of Il Protection						

Tréatment:

Treated perfs. 3426'-3436' w/ 250 gals. 15% HCl acid, 409 bbls cross linked gel, and 25,200 # 20/40 sand.

Well Log:

SEE ORIGINAL WELL RECORD

State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

		··· oan operato	r a rechor	r or A cu	AA ON W		
arm name: '	ABLE, PAUI		Oper	rator Well	No.: L.E.	DULANEY 97	OPY
OCATION:	Elevation:	1,300'	Quad	drangle:	WOLF SU	MMIT 7.5'	
	District: Latitude: Longitude:	GRANT 14,080 Feet south 10,750 Feet west of		nty: WE Deg 37 Deg 37			
ompany:	P.O. BOX 55	URCES, INC. 19 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
gent:	PHILIP S. ON	IDRUSEK					
spector: ermit İssued: ⁷ ell work Com ⁷ ell work Com erbal plugging	pleted:	01/22/10 03/08/10 03/08/10					
ermission gran otary X otal Depth (fe- resh water dep	_Cable et)	Rig 3303' N/A		8 5/8"	1123'	1123'	485 sks
alt water depth		N/A		4 1/2"	3278'	3278'	275 sks
-					<u> </u>		
coal being mi	ined in area (Y/):	N) NA N					
PEN FLOW I	DATA	* WATERFLOOD IN	NJECTOR	_		·	•
Gas:	ing formation Initial open florinal open floring Time of operock pressure		MCF/d MCF/d and fin	Fin	Pay zone dial open flow al open flow essure)	ж ` <u> </u>	3156'-3166' * Bbl/d * Bbl/d Hours
Gas:	d producing for Initial open flo Final open flo Time of oper rock pressure	ow	$\overline{}$ MCF/d $\overline{}$ and fin	Fin	Pay zone of ial open flow al open flow essure)	w	Bbl/d Bbl/d s Hours
R STIMULATIN	NG, PHYSICAL O	I, PUT THE FOLLOWING: HANGE, ETC. 2) THE W FORMATIONS, INCLUDI	ELL LOG V	WHICH IS	a systemat	TIC DETAILED	CTURING
Off	RECEIVED	- FOLENAS	T RESOU	JRCES, II	VC.	Sin New	d-
	FEB 0 5 2013	Date	e:			9/15	1/0

WV Department of Environmental Protection

Treatment:

Treated perfs. 3156'-3166' w/ 250 gals. 15% HCl acid, 313 bbls cross linked gel, and 13,300 # 20/40 sand.

Well Log:

SEE ORIGINAL WELL RECORD

Treatment:

Treated perfs 2856'-2868' w/ 250 gals. 15% HCl, 420 bbls cross linked gel, and 17,800 # 20/40 sand.

Well Log:

SEE ORIGINAL WELL RECORD

47 103 02509

State of West Virginia Division of Environmental Protection Section of Oil and Gas

CO	PY
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		Well ()perator's l	Repor	t of Well	Work	1 n(
Farm name:	EAST RESO	URCES		Oper	ator Well	No.: JAD	ULANEY 279		
LOCATION:	Elevation:	1,156'		Quad	lrangle:	PINE GRO	VE 7.5'		
·	District: Latitude: Longitude:		et south of et west of		nty: WE' Deg 37 Deg 37		Sec. Sec.		
Company:	P.O. BOX 55	URCES, INC. 19 V 26105-5519			Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.	
Agent:	PHILIP S. O	NDRUSEK							
Inspector: Permit Issued: Well work Cor		12/01/09 02/15/10					•		
Well work Cor Verbal pluggin	g	03/19/10							
permission gra Rotary <u>X</u> Total Depth (fe	Cable eet)	Rig 3320'			7"	1126'	1126'	275 sks	
Fresh water de	pths (ft)				4 1/2"	3239.8'	3239.8'	150 sks	٦
Salt water dept	ths (ft)					3237.0		130 585	_
Is coal being m Coal Depths (f	nined in area (Y	/N) NA NA	<u> </u>						
OPEN FLOW	DATA	* WATERFL	OOD PROI	DUCE	R				
	cing formation		Gordon	·	20 - 11	Pay zone (ft) 3118'-		6'.
Gas:	Initial open f			CF/d CF/d		al open flow lopen flow		* Bbl/d * Bbl/d	
Static	Time of operock pressure	n flow between				•	Hours after		
Secon Gas:	d producing for Initial open f		M	CF/d	Oil: Initia	Pay zone do		Bbl/d	<u>.</u>
	Final open fl		M	CF/d	Fina	l open flow		Bbl/d	
Static	rock pressure		ps	ig (su	rface pres	ssure)	after	Hours	
OR STIMULATI	NG, PHYSICAL (ECORD OF ALL 同居のほ	I, PUT THE FOLL CHANGE, ETC. 2) FORMATIONS, I	THE WELL:	LOG W	/HICH IS A ENCOUNTE	SYSTEMATI ERED BY THI	C DETAILED	CTURING	
		Oil & Gas Fo	r: EAST RI By:	ESOU.	KCES, IN		1 then	_	
	FEB (5 2013	Date:			00	5/12/10		

WV Department of

Well Log:	0	300	Sand and Shale
	300	308	Sand
	308	340	Shale
	340	386	Sand
	386	412	Shale
	412	428	Sand
	428	450	Shale
	450 500	500	Sand
	500 595	595 616	Shale
	615	615 637	Sand Shale
	637	661	Sand
	661	710	Shale
	710	760	Sand
	760	764	Shale
	764	780	Sand
	780	806	Shale
	806	1004	Sand
	1004	1048	Shale
	1048	1060	Sand
	1060	1084	Shale
	1084	1104	Sand
	1104	1125	Shale
	1125	1156	Sand
	1156	1178	Shale
	1178	1185	Sand
	1185	1306	Shale
	1306	1318	Sand
	1318	1534	Shale
	1534	1558	Sand
	1558 1568	1568	Shale .
	1584	1584 1706	Sand Shale
	1706	1705	Sand
	1725	1736	Shale
	1736	1758	Sand
	1758	1787	Shale
	1787	1837	Sand
	1837	1935	Shale
	1935	1972	Sand
	1972	2002	Shale
	2002	2037	Sand
	2037	2054	Shale
	2054	2116	Sand
	2116	2171	Shale
	2171	2202	Sand
	2202	2214	Shale
	2214 2222	2222 2288	Sand Big Lime
	2288		Big Lime
	2508	2508 3068	Shale
	3068	3094	Gordon Stray
	3094	3098	Shale
	3098	3122	Gordon
	3122	3126	Shale
	3126	3139	Sand
	3139	3320	Shale
	3320		TD

47 103 2563

State of West Virginia Division of Environmental Protection Section of Oil and Gas



Well Operator's Report of Well Work

		Work Ope	A MILOZ D ALO	Port or 11 cm	Y I OX IX		
Farm name:	УОНО, ЈАМ	ES & FLORENCE	E C	perator Well	No.: CATI	HERINE MAR	TIN 304 REV
LOCATION:	Elevation:	1,415'	Ç	Quadrangle:	PINE GRO	VE 7.5'	
	District: Latitude: Longitude:	GRANT 10,700 Feet s 340 Feet v	outh of	County: WE 39 Deg 37 80 Deg 37	Min 30	Sec. Sec.	
Company:	P.O. BOX 55	URCES, INC. 19 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Agent:	PHILIP S. O	NDRUSEK					·
Inspector: Permit Issued: Well work Com Well work Com		ANAGE 06/23/10 07/06/10 08/18/10	- -				
Verbal plugging permission gran Rotary X Total Depth (fe	g ated on: Cable et)	Rig 3955'	-	7"	1394'	1394'	360 sks
Fresh water dept				4 1/2"	3938.15'	3938.15'	150 sks
Is coal being marked Coal Depths (ft	•	/N) NA	- -				
OPEN FLOW I	This woing formation Initial open formation Final open floor		Gordon MC MC	F/d Oil: Init F/d Fin	Pay zone d	lepth (ft) w	3770'-3786' 3794'-3834' Bbl/d Bbl/d
Static	rock pressure	en now between		s (surface pro		after	Hours
Secon Gas:	d producing for Initial open f Final open fl Time of open	low	MC		Pay zone of the Pay zone of th	w	Bbl/d Bbl/d
Static	rock pressure			g (surface pro	essure)	after	Hours
OR STIMULATE	NG, PHYSICAL (ECORD OF ALL	A, PUT THE FOLLOW CHANGE, ETC. 2) TO FORMATIONS, INC ECEIVED	HE WELL LO	OG WHICH IS A	A SYSTEMAT TERED BY TH	TIC DETAILED	CTURING
		of Oil & Gas:	By:	SOURCES, II	NC.	n delde	_
	rt	B C 5 7013	Date:			9/28/10	

W/ Department of

Treatment:

Treated perforations (3770'-3786', 3794'-3834') w/ 250 gals. 15% HCl, 350 bbls cross linked gel, & 23,700 # 20/40 sand.

337.31 Y	0	400	a 1
Well Log:	0	438	Sand and Shale
	438	488	Sand
	488	956	Sand and Shale
	956	1196	Sand
	1196	1204	Shale
	1204	1216	Sand
	1216	1326	Shale
	1326	1350	Sand
	1350	1707	Shale
	1707	1743	Sand
	1743	1888	Shale
	1888	1916	Sand
	1916	1928	Shale
	1928	1960	Sand
	1960	2032	Shale
	2032	2104	Sand
	2104	2176	Shale
	2176	2208	Sand
	2208	2240	Shale
	2240	2302	Sand
	2302	2322	Shale
	2322	2340	Sand
	2340	2508	Shale
	-2508	-25 29	Sand
	2529	2548	Shale
	2548	2559	Sand
	2559	2718	Big Lime
	2718	2967	Big Injun
	2967	3750	Shale
	3750	3788	Gordon Stray
	3788	3792	Shale
	3792	3835	Gordon
	3835	3857	Shale
	3857	3864	Sand
·	3864	3938	Shale
	3938	•	TD

State of West Virginia Division of Environmental Protection Section of Oil and Gas



		Well Operator's	Repor	t of Well \	Work			
Farm name:	YOHO, EVE	LYN	Oper	rator Well	No.: WM I	H CRISWELL	302	
LOCATION:	Elevation:	969'	Quad	irangle:	BIG RUN 7	7.5'		
	District: Latitude: Longitude:	GRANT 7,240 Feet south of 11,070 Feet west of		•		Sec. Sec.		
Company:	P.O. BOX 55	URCES, INC. 19 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up · Cu. Ft.	
Agent:	PHILIP S. ON	DRUSEK						٦
Inspector: Permit Issued: Well work Com Well work Com Verbal plugging	pleted:	ANAGE 05/18/10 06/14/10 07/21/10						_
permission gran Rotary X Total Depth (fee Fresh water dep	_Cable et)	Rig 3110' 350'		7"	967'	967'	230 sks	
Salt water depth	.,			4 1/2"	2739.1'	2739.1'	150 sks	
Is coal being mi Coal Depths (ft)):	N) N 775'-785'					2859'-2875'	
Produc	ing formation	Gordon			Pay zone de	epth (ft)	2878.5'-2881.5	5'
Gas:	Initial open flo				al open flow		Bbl/d	_
	Final open flo	w n flow-between-initial ar	ICF/d		d open flow	Hours	Bbl/d	
Static r	ock pressure			urface pres	ssure)	after	Hours	į
Gas:	l producing form Initial open flow Final open flow Time of open rock pressure	ow Mow Mow Mow Mow Mow Mow Mow Mow Mow M	ICF/d nd fina	Fina	Pay zone de al open flow l open flow ssure)		Bbl/d Bbl/d Hours	
OR STIMULATIN	IG, PHYSICAL C ECORD OF ALL 常にCEI	, put the following: 1): hange, etc. 2) the well formations, including VED ii & Gas For: EAST R	LOG V	VHICH IS A ENCOUNTI	SYSTEMATI ERED BY THI	C DETAILED	TURING	
		By:			Br A	eld-		
	FEB 0 5	2013 Date:			- 1/2	0//0		

WV Department of Environmental Protection

Treatment:

Treated perfs (2859'-2875', 2878.5'-2881.5') w/ 250 gals 15% HCl acid, 400 bbls cross linked gel, and 25,300# 20/40 sand.

	•	410	Cand and Chala
Well Log:	0 418	418 448	Sand and Shale Sand
	448	552	Shale
	552	700	Sand
	700	706	Shale
	706	732	Sand
	732	748	Shale
	748	762 .	Sand
	762	775	Shale
	775	785	Coal
	785	788	Shale
	788	800	Sand
	800	868	Shale
	868	988	Sand
	988	1284	Shale
	1284	1303	Sand Shale
	1303	1420	
•	1420	1481	Sand
	1481	1490	Shale Sand
	1490	1516	Saud Shale
	1516	1556 1590	Sand
	1556 1500	1630	Shale
	1590 1630	1650	Sand
	1650	1686	Shale
	1686	1733	Sand
	1733	1752	Shale
	1752	1788	Sand
	1788	1824	Shale
	1824	1862	Sand
	1862	1876	Shale
	1876	1966	Sand
	1966	1950	Big Lime
	1950	2262	Big Injun
	2262	2830	Shale
	2830	2852	Gordon Stray
	2852	2855	Shale
	2855	2882	Gordon
	2882	2892	Shale
	2892	2896	Sand
	2896	3080	Shale
	3080		TD
			•

WR-35 Rev (5-01) Page 2 of 2

WELL: 31024

Were core samples taken? Yes No X Were cuttings caught during drilling? Yes No X Were Electrical, Mechanical, X or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

PERFORATED INTERVALS, FRACTURING, OR STIMULATING:

10/27/2010 SUPERIOR RAN BOND LOG. TD - 4843'. TOC - 1520'. PERFED FIRST STAGE ANGOLA, 4040'-4656', 35 HOLES. WELL READY FRAC.

10/28/2010 SUPERIOR PERFED AND FRACED AS FOLLOWS:

ANGOLA/JAVA SHALE, 4040'-4656', 35 HOLES, BD 2612#, AVG PRESS 3743'.

750 MSCFN2

LOWER HURON, 3528'-3808', 39 HOLES, BD 3000#, AVG PRESS 3228',

750 MSCFN2,

UPPER HURON, 2878'-3228'. 30 HOLES, BD 2515#, AVG PRESS 2848#, 850 MSCFN2 UPPER HURON, 1998'-2680', 40 HOLES, BD 2550#, AVG PRESS 2357#, 775 MSCFN2 PAPER ONED WELL BACK ASTER PRACE

B&B FLOWED WELL BACK AFTER FRAC.

FORMATIONS ENCOUNTERED:

Fill	0	26	Sand&Shale	26	65
RedRock	65	78	Sand&Shale	78	157
Sand & Shell	157	200	RedRock/Shale	200	240
Shell & Sand	240	297	RedRock/Shell	297	324
Shale	324	620	Sand	620	632
Shale	632	690	RedRock/Shale	690	780
Sand	780	796	Sand/Shale	796	1089
RedRock&Shale	1089	1165	Sand&Shale	1165	1231
Coal	1231	1233	Sand/Shale	1233	1390
RedRock/Shale	1390	1425	Shell/Sand	1425	1540
Sand&Shell	1540				

	GAMMA		
	RAY/		
#31024	<u>FORMATION</u> TOPS		47-107-01704
Later the state of	TOP	BASE	
BIG LIME	1615	1690	
BIG INJUN	1695	1775	
COFFEE SHALE	2130	2175	.
LOWER HURON	3485	4500	
JAVA SHALE	4500	4750	
PIPE CREEK SHALE	4750	4785	# Management and product and the second seco
ANGOLA SHALE	4785	5010	•
LTD		5058	

WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013	
API #:	47-033-05665	

Farm name: Jones, John R. & Catherine V.	Operator Well	No.: Hurst-Zirk	Unit 1H	
LOCATION: Elevation: 1176'	Quadrangle: V	Volf Summit		
District: Sardis Latitude: 12,679' Feet South of 39 Deg.		Sec	· -	
Longitude 5647' Feet West of 80 Deg.	22Min.	. <u>30</u> Sec	.	
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	74'	74'	71 Cu. Ft.
Agent: CT Corporation System	13 3/8" 48#	374'	374'	520 Cu. Ft. Class A
Inspector: Tristan Jenkins	9 5/8" 36#	2626'	2626'	1069Cu. Ft. Class A
Date Permit Issued: 8/14/2012	5 1/2" 20#	13955'	13955'	3400 Cu. Ft. Class H
Date Well Work Commenced: 9/1/2012				
Date Well Work Completed: 11/4/2012				
Verbal Plugging: N/A				
Date Permission granted on: N/A	2 3/8" 4.6#	7302'		
Ratery V Cable Rig				
Total Vertical Depth (ft): 7113' TVD (deepest poi	nt drilled)			
Total Measured Depth (ft): 7086' TVD (BHL), 1395	55' MD			
Total Measured Depair (19).				
Picsii Water Depth (tt.):				
	<u> </u>			
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Pad constructed on reclaimed PHG coal bench			_	
Void(s) encountered (N/Y) Depth(s) None	<u> </u>	<u> </u>		
OPEN FLOW DATA (If more than two producing formation Producing formation Pay	zone depth (ft)	7067, 1AD (10	data on separate op)	sheet)
Gas: Initial open flow MCF/d Oil: Initial open f	low N/A B	Bbl/d bl/d		
Final open flow 5931 MCF/d Final open flow Time of open flow between initial and final tests N/A				
Static rock Pressure 3300 psig (surface pressure) a	fterHo			
Second producing formationPay zo	one depth (ft)_			
Gas: Initial open flowMCF/d Oil: Initial open	flowE	3bl/d		
Final open flow MCF/d Final open flo	WB Hour	·bl/d ·s		
Time of open flow between initial and final tests	ifterHo	urs		
			ation auborit	ed on this docum
I certify under penalty of law that I have personally examined	and am familia	ar with the info	rmanon suomu ble for obtainin	the information

document and the information I believe all the attachments and that, based on my inquiry of those individuals immediately responsible f that the information is true, accurate, and complete.

Were core samples taken? YesN	OX Were cuttings caug	tht during drilling? YesNoNo			
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes - CBL This is a subsequent well. Antero only runs wireline logs on the first well on a multi-well pad (Hurst Unit 1H, AP# 47-033-05626). Please reference the wireline logs submitted with Form WR-35 for Hurst Unit 1H.					
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVAL FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATI DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDIN COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.					
Perforated Intervals, Fracturing, or Stimul	ating:				
Perforations: 7328'-13889' (1100 h	oles)	704 700 // 400 mmh			
	cid, 139,632 bbls Slick Water carry	ing 721,760# 100 mesn,			
2,776,420# 40/70 and 1,657,110#	20/40 sand.				
Plug Back Details Including Plug Type ar	nd Depth(s): N/A				
Formations Encountered:	Top Depth /	Bottom Depth			
Surface:		<i>,</i>			
	14251	1486'			
Big Lime est.	1436'	2028'			
Big Injun est.	1487'	2210'			
Fifty Foot Sandstone est.	2029'	2455'			
Gordon est.	2211'	2487'			
Fifth Sandstone est.	2456'	3146'			
Bayard est.	2488'	3370'			
Speechley est.	3147'	3908'			
Balltown est.	3371'	4476'			
Bradford est.	3909'	4864'			
Benson est.	4477'	5140'			
Alexander est.	4865'	6645'			
Elk est.	5141'	6649'			
Middlesex	6646'	6820'			
Sonyea	6650'	6843'			
Burket	6821'	7066'			
Tully	6844'	7066 7113' TVD			
Marcellus	7067'	,113 140			

WR - 35 Rev (5-i;1) Do	State of We epartment of Enviro Office of O Well Opererators R	onmental Protection			Date: API#:	December : 4703906	
<u> </u>			LOCATION				
<u>Fann Name:</u> Blue Eagle Land		Operators well name:	AL-276		Elevation:	1315 GL	
7% Min, Quad Mammoth	<u>District:</u> Elk	County: Kanawha	<u>Latitude:</u>	2860FTS 38-20-00	Longitude:	1790FTW 81-12-30	
			COMPANY				
Reed Gas, Inc. 1314 Virginia Street East Charleston, WV 25301		Operator #		41350			
Agent: James W. Reed Jr.		Csg & Tbg Used in	Left in Well			Cement Data	
Inspector: Terry Urban Date Permit Issued:	7/1/08	(in-OD) Drilling	32	FI	Sk	(Lead/Tail) Grout to surface	Cement
Date Well Work Commenced: Date Well Work Completed:	9/16/08 11/7/08	9-6/8 320 7.000 2115	320 2115	Ft FL		102 125	To Surface To Surface
Total Depth (feet):	6317	4-1/2 6311	6311	FI		150	
		Tubing		Ft	Туре		
<u>Verbal Plugoing</u> Date Permission Granted:		Fresh Water Depth (feet) Sait Water Depth (feet):	:				
		is coal being mined in an					
			N FLOW DA	TA			
E+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2+2	itlal Open Flow:	Mercellus MCF/d	Oil:		tnitial Open		BbVd
1		* See Remarks MCF/d sen Initial and final tests:		hours	Final Open	Flow:	BPAq
	rock pressure:			hours			5264 6068
	itial Open Flow:	Rhinestree MCF/d	Oll:	finitial O	Pay zone depth (ft) pen Flow: pen Flow:		BbVd BbVd
	inal Open Flow: Time of open flow batw c rock pressure:	* See Remarks MCF/d een initial and final tests:		hours hours	jen ruw.		
		Huron				Pay zone depth (m: 3834 5144
######################################	titial Open Flow: Inal Open Flow:	MCF/d	Oil:	J	Initizi Oper Final Oper	Flow:	BbVd BbVd
		veen Initial and final tests:		hours hours	, - p		
		L. Weir				Pay zone depth (ft): 2413 2466
Gas: Ir	hitle! Open Flow: Finel Open Flow:	MCF/d MCF/d See Remarks MCF/d	Oll:	<u></u>	Initial Oper Final Oper	Flow:	Bbl/d Bbl/d
	Time of open flow betw c rock pressure:	reen initial and final tests:		hours			_
5° Producing forma		U. Weir				Pay zone depth (
Gas: Ir	nitial Open Flow: Final Open Flow:	MCF/d * See Remarks MCF/d	OII:	-	Initiat Oper Final Oper	n Flow:	BbVd BbVd
	Time of open flow bety ic rock pressure:	veen initial and final tests		hours hours			····
6 th Producing forms		Injun				Pay zone depth	(ft) 2277 2296
Gas: I	nitial Open Flow: Final Open Flow:	* See Remarks MCF/d	Oii:	Final C	pen Flow: pen Flow:		BbVd BbVd
	Time of open flow beto ic rock pressure:	veen initial and final tests		hours hours	RECE		******************
NOTE. ON BACK OF THIS FORM PUT THE	FOLLOWING: 1) DETAILS OF F	ERFORATED INTERVALS, FRACTL ORD OF ALL FORMATIONS, INCLU	IRING OR STIMULA DING COAL ENCO	TING, PHYSICAL CHANGE, ENC INTERED BY THE WELLBORE	Hateriot Mad		ED GEGLOGIC .
State	**************		1905 7 19 15 15 15 15 15 15 15 15 15 15 15 15 15	***************************************	FEB 0	4 2013	
i e	Ву:	James W. R	eed, Jr.				
Da	te:				MV Depa	artment Of	tion.
				Env	LUnman	roi wratec	IIOI I

GEOLOGICAL RECORD

Formation	Тор	Base
Sand & Shale	Surface	832
Eagle Shale	832	836
Sand & Shale	832	910
Rosedale Sd.	910	945
Sand & Shale	945	1085
Salt Sd.	1085	1452
Sand & Shale	1452	1742
Maxon Sd.	1742	1793
Sand & Shale	1793	1798
Little Lime	1798	1832
Sand & Shale	1832	1832
Pencil Cave	1832	1847
Greenbrier Ls.	1847	
Big Injun Sd.	2015	2032
Sand & Shale	2032	2075
000000000000000000000000000000000000000	100000000000000000000000000000000000000	

Formation	Тор	Base
Weir Sd.	2075	2200
Sand & Shale	2200	2432
Coffee Sh.	2432	2450
Davonian Shale	2450	410
Lower Huron Shale	4105	451
Sand & Shale	4515	497
Rhinestreet Sh	4975	553
Hamilton Sh.	5535	670
Marceltus Shale	5700	575
Onendaga Ls	5758	TD
-		

COMPLETION RECORD

	niversal
Date:	
Stage 1	
Formation	Marcellus
Тура	Nitrogen
Casing (in)	4.500
Top Perf Interval	6260
Base Perf Interval	6275
Perf Count	26
Breakdown (psi)	4112
Ave Treat (psi)	3164
Water (Bbl)	
Rate (bpm)	
Total Sand (lbs)	
Conc.(lb/gal	
Nitrogen (Mscf)	456
Rate (Mscf/min)	43

Contractor: Ur	Contractor: Universal	
Date:		
Stage 4		
Formation	L. Weir	
Туре	75 QFoam	
Casing (in)	4.500	
Top Perf Interval	2413	
Base Perf Interval	2486	
Perf Count	20	
Breakdown (psi)	3045	
Ave Treat (psi)	3058	
Water (Bbi)	231	
Ave Rate (bpm)	35	
Total Sand (lbs)	40000	
Conc.(lb/ga)	39816	
Nitrogen (Mscf)	409	
Rate (Mscf/min)		
888888888888888888888888888888888888888		

Contractor: U	Iniversal
Date:	
Stage	2
Formation	Rhinestreet
Туре	Nitrogen
Casing (in)	4.500
Top Perf Interval	5264
Base Perf Interval	6058
Perf Count	56
Breakdown (psl)	3741
Ave Treat (psi)	3699
Water (Bbi)	
Rate (bpm)	
Total Sand (lbs)	
Conc.(lb/gal	
Nitrogen (Mscf)	1000
Rate (Mscf/mln)	57
mmeureneessassas	

ontractor: Universal		
Date:	ate:	
Stage		
Formation	U. Welr	
Type	75Q Foam	
Casing (ln)	4.500	
Top Perf Interval	2364	
Base Perf Interval	2374	
Perf Count	20	
Breakdown (psi)	2310	
Water (Bbl)	223	
Ave Treat (psi)	2560	
Ave Rate (bpm)	34	
Total Sand (lbs)	50000	
Conc.(lb/gal		
Nitrogen (Mscf)	437	
Rate (Mscf/mln)	I	

Contractor:	<u>Universal</u>
Date:	
Stag	
Formation	Huron
Туре	Nitrogen
Casing (in)	4.500
Top Perf Interval	3834
Base Perf interval	5144
Perf Count	55
Breakdown (psi)	3129
Ave Treat (psi)	3544
Water (Bbl)	
Rate (bpm)	
Total Sand (lbs)	
Conc.(ib/ga)	
Nitragen (Mscf)	1000
Rate (Mscf/mln)	52

Universal ,	
je 6	
injun	
75Q Foam	
4.500	
2277	
2296	
25	
875	
184	
2503	
23	
35000	
276	
a constant	

Remarks

PECEIVED
Office of Off & Gas

*Comingled

FOF: 540m/d IRP: 600# TIL: 03/19/08 FEB 0 4 2013

DATE: 06/25/2010

API#: 47-059-01251-F

Cement fill

up Cu. Ft.

State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator's Report of Well Work

Casing &

Tubing

Farm name: Cotiga Limited Partnership

Operator Well No.: 823252

LOCATION: Elevation: 839.70

Quadrangle: Williamson

District: Hardee

County: Mingo

Used in

drilling

Latitude: 500 Ft South of 37° 45' 00".

Longitude: 5400 Ft West of 82° 15' 00"

Chesapeake Energy Address: P.O. Box 6070 Charleston, WV 25362-000

Agent: Tim Dugan
Inspector: Gary Scites

13 3/8"	47'KB	47' KB	Driven
9 5/8"	365°KB	365'KB	165
7"	1835'KB	1835'KB	357
4 1/2"	3690'KB	3690'KB	190

Left in well

Date Permit Issued: 06/24/2008

Date Well Work Commenced: 08/26/2008 Date Well Work Completed: 10/03/2008

Verbal Plugging:

Date Permission granted on:

Rotary X Cable Rig Total Depth (feet): DTD-3754', LTD-' Fresh Water Depth (ft): 2 1/2" stream 110', 3 ½" stream@240', 4" stream @ 300' Salt Water Depth (ft): 1-2" stream @ 1316' Is coal being mined in arca(N/Y)? No

Coal Depths (ft): None Noted

RECEIVED
Office of Oil & Gas

FEB 0 4 2013

WV Department of Environmental Protection

OPEN FLOW DATA

Producing formation: Berea	Pay 2	one depth (ft) 2622 °	to 2649 °
Gas: Initial open flow: 146 M	CF/d Oil: In	itial open flow	Bbi/d
Final open flow: 146 MCF	/d Final	open flow	Bb1/d
Time of open flow between	initial and	final tests 72 Hours	-
Static rock Pressure: 426 psi	(surface pres	sure) after: 72 Hour	5
<u>-</u>			
Second producing formation_		Pay zone dep	th (ft)
Gas: Initial open flow	MCF/d Oil	: Initial open flow	Bbl/d
Gas: Initial open flow Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow between	n initial and	final tests	Hours
Static rock Pressure	_psig (surfa	ce pressure) after	Hours
NOWE ON DAOK OF WHICH FORM	DIPPEUD D	OU OWING: IN DET	AII G OE DEDEOD ATED
NOTE: ON BACK OF THIS FORM	PULINET'	OLLOWING: 17. DET	MOD RIC 2) THE WELL
INTERVALS, FRACTURING OR S	IIMOLATI	NG, PHISICAL CHA	NOE, ETC. 2). THE WELL
LOG WHICH IS A SYSTEMATIC	DETAILED (JEOLOGICAL RECO	IKD OF ALL FORMATIONS,
INCLUDING COAL ENCOUNTER	ED BY THE	WELLBORE.	
Signed:	eline,	/ Mellicons	_

Chesapeake Energy Well No.: 823252 Perforated Intervals

Berea- Perforated -2622'-2649' 6 Holes

Fracturing/Stimulation: 1st Stage: Berea

Type: 750 Foam Frac

Perforations from: 2622' to 2649'

Avg. Treating Rate: 25 BPM

Total N2: 283,900 SCF

Total Sand: 48,100 Lbs 20/40

38.2684, -82.358

Job

Breakdown: 2818 psi.

ATP: <u>1747</u> psi

ISIP: <u>1155</u> psi

Total Fluid: 246 Bbl

Well Log

Well Log			
FORMATIONS	Тор	Bottom	Comments
Sand/Shale	0	894	
Salt Sand	894	1640	
Sand/Shale	1640	1712	
Maxon	1712	1741	
Sand/Shale	1741	1759	
Little Lime	1759	1805	
Big Lime	1805	1996	
Sand/Shale	1996	2033	
Injun	2033	2054	
Shale	2054	2200	
Weir	2200	2255	
Shale	2255	2622	
Berca	2622	2680	
Devonian Shale	2680	TD	
TD	3754		
LTD	3752		
		İ	
			····

RECEIVED
Office of Oil & Gas

FEB 0 4 2013

WV Department of Environmental Protection

Signed:

DATE: 11-30-2011 API#: 47-5902105

State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: <u>Theodore & Marie Floyd</u>	Opera	ator Well NO.:_	1987	
LOCATION: Elevation: 792.4'	_ Quad	rangle: <u>DEI</u>	BARTON	
District: <u>LEE</u>	County:	MINGO		
Latitude: 8,471 Feet South of 37 De	o 45 N	1in. <u>00</u> S	Sec.	-
Longitude 5,414 Feet West of 82 De			ec.	
Longitudo 34414 1 oot 11 obt of 62 2	·			
Company: Mountain Ridge, LLC	_			
	Casing &	Used in	Left in well	Cement fill
Quality Natural Gas	Tubing	drilling		up Cu. Ft.
Address: HC 71, RT. 4, BOX 87-A	13 3/8"	51'	51'	- 110
WHARNCLIFFE, WV 25651	9 5/8"	262'	262'	148
Agent: JAMES HILL	7"	1904'	1904'	449
Inspector: GARY SCITES	4 1/2"	None		
Date Permit Issued: 8/25/2009				
Date Well Work Commenced: 08/25/11				
Date Well Work Completed: 11/20/11				
Verbal Plugging:				
Date Permission granted on:				
Rotary YES Cable Rig				
Total Depth (feet): 3,912'				
Fresh Water Depth (ft.): NONE				
Salt Water Depth (ft.): 930'				
Is coal being mined in area (N/Y)? NO				
Coal Depths (ft.):				
Coa. 2 op a ()-			,	
OPEN FLOW DATA				
Producing formation LIME Pa	ay zone depth	(ft)SEE ATTACH	ED	
Gast Initial open flow 1.495 MC	CF/d Oil: Initia	al open flow_	Bpi/a	
Final open flow MCF/d	Final oper	1 flow	BUI/U	
Time of open flow between initial and	final tests	Ho	ours	
Static rock Pressure 640 psig (surfa	ce pressure) a	fter <u>72</u> H	ours	
Second producing formation	Pay zo:	ne depth (ft)_	·	
God Initial open flow MCF/d Oil:	Initial open I	low	DUI/U	,
Final open flow MCF/d F	inal open flow	νE	Bbl/d	7.0
Time of open flow between initial and	final tests	Hou	rs	
Static rock Pressurepsig (surf	face pressure)	after	Hours	
NOTE: ON BACK OF THIS FORM PUT THE INTERVALS, FRACTURING OR STIMULATING US WHICH IS A SYSTEMATIC DETAILED INCLUDING COAL ENCOUNTERED BY THE	NG, PHYSICA GEOLOGICA	L CHANGE, 1	51C. Z). Inc w	יויוי

A DTU	47-5902008
API#	47-3702000

1987 WELL

API#	4	7-5902008	V	VELL		1987	
FROM FROM	то	ROCK TY (DESCRIBE ROCK TYPES AN	ID OTHER MATERIALS OCCURRENCES OF OIL GAS		ROM		ROCK TYPE (DESCRIBE ROCK TYPES AND OTHER MATERIALS ENETRATED AND RECORD OCCURRENCES OF OIL GAS, IND WATER FROM SURFACE TO TOTAL DEPTH)
50	50 300 330 480 540 660 960 1020 1120 1620 1740 1820 2120 2230 2685 2720 2810	FILL DIRT SAND/SHALE SHALE SAND/SHALE SAND/SHALE SAND/SHALE SAND SAND/SHALE SAND SAND/SHALE SAND SAND/SHALE LITTLE LIME BIG LIME INJUN WEIR COFFEE SHALE BEREA BROWN SHALE	TO TOTAL DEPTH)				GAS CHECK @ 2100' - BIG LIME 11/10 7" GAS CHECK @ 2310' - WEIR 13/10 7" GAS CHECK @ 2700' - COFFEE 11/10 7" GAS CHECK @ 2820' - BR. SHALE 11/10 7" GAS CHECK @ 4423' - BR. SHALE/SMELL

QUALITY NATURAL GAS, LLC WR-35 COMPLETION REPORT - Attachment TREATMENT SUMMARY

WELL NAME & NO. API #	QUALITY NATURAL GAS, LLC, #1987
	47-5902105
DATE	11/20/2011
STAGE NO. 1	
TYPE FRAC	NATURAL WELL
ACID AMOUNT	
# PERFORATIONS	
PERF INTERVAL MAXIMUM PRESSURE	
INSTANT SHUT IN PRESSURE	
TOTAL TREATMENT VOLUME	
STAGE NO. 2	
_	
TYPE FRAC	
ACID AMOUNT # PERFORATIONS	
PERF INTERVAL	
MAXIMUM PRESSURE	
INSTANT SHUT IN PRESSURE	
TOTAL TREATMENT VOLUME	
STAGE NO. 3	•
CLUBE ED A C	
TYPE FRAC ACID AMOUNT	
# PERFORATIONS	
PERF INTERVAL	
MAXIMUM PRESSURE	
INSTANT SHUT IN PRESSURE	
INSTANT SHUT IN PRESSURE	

WR-35 Rev (8-10)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	5-12-2011	
API#:	47-9101168	

Farm name: Armstrong, Robert L & Julio	Operator Wel	No.: Armstrong	1HM	
LOCATION: Elevation: 1,326	Quadrangle: _	Smflon		
District: Courthouse	County: Taylo	r		
Latitude: 39 Feet South of 20 Deg.	00 Min.	Sec		
Longitude 80 Feet West of 05 Deg.	81Min.	Sec	•	
Company:				
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PDC Mountaineer, LLC 120 Genesis Blvd. Bridgeport, WV 28330	20"	58'	58'	
Agent: Bob Williamson	13 3/8"	460'	460'	362 sxs
Inspector: Bryan Harris	9 5/8"	2,718	2,718'	640 sxs
Date Permit Issued: 11/25/2009	5 1/2"	11,457'	11,457'	1,143 sxs
Date Well Work Commenced: 3/10/2010				
Date Well Work Completed: 6/10/2010				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Vertical Depth (ft):				
Total Measured Depth (ft):				
Fresh Water Depth (ft.): 35', 200', 340'				
Salt Water Depth (ft.): Grantz @2020'				
Is coal being mined in area (N/Y)? NO				
Coal Depths (ft.): 400', 1030'				
Void(s) encountered (N/Y) Depth(s)				
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay z Gas: Initial open flow MCF/d Oil: Initial open flow Final open flow 2,200 MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure 700 psig (surface pressure) after the producing formation open flow producing formation producing formation pays and producing formation pays and producing formation pays and producing formation pays and producing formation pays and producing formation pays and producing formation pays and producing formation pays and pays and producing formation pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and pays and	cone depth (ft)_ owBb /BbHours	ol/d 1/d	ita on separate si	heet)
Second producing formation Pay 201	ne depth (ft)			
Gas: Initial open flow MCF/d Oil: Initial open fl				
Final open flowMCF/d Final open flow				
Time of open flow between initial and final tests				
Static rock Pressure psig (surface pressure) af	iernou	rs		
I certify under penalty of law that I have personally examined a the attachments and that, based on my inquiry of those individuate information is true, accurate, and complete.		y responsible fo		

Signature

Date

Were core samples taken? Yes	_No_X	Were cuttings caught during drilling?	Yes_XNo
Were N Electrical, Y Mechan	nical, Y or Geophysical	l logs recorded on this well?	
FRACTURING OR STIMULATIN	ig, physical changi ord of the tops and	VING: 1). DETAILS OF PERFORE, ETC. 2). THE WELL LOG WHICE BOTTOMS OF ALL FORMATIONS TO TOTAL DEPTH.	H IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stir	mulating:		
See attached sheets.			
Formations Encountered: Surface:	Тор Осрі	th/	Bottom Depth
	Тор Оср	th/	Bottom Depth
	Тор Оср	th	Bottom Depth
	Тор Оср	th /	Bottom Depth
	Тор Оср	th /	Bottom Depth
	Тор Оср	th /	Bottom Depth
	Top Dcp	th /	Bottom Depth
	Top Dcp	th /	Bottom Depth
	Top Dcp	th /	Bottom Depth
	Top Dcp	th /	Boitom Depth
	Top Dcp	th /	Bottom Depth

Armstrong #1HM 47-091-01169 GL: 1326*

KB: 1344' Depths are taken from KE

	WELL	LOG		REMARKS: FRESH & SALT
FORMATION	MD TOP	MD BASE	TVD TOP	WATER, COAL, OIL & GAS
	FEET	FEET	FEET	•
		0		Damp @ 30'
sand, shale, RR	٥	1540	0	1" H2o @ 250'
Little Lime	1540	1556	1540	2" Saltwaler @ 2040"
sand, shale	1556	1580	1556	
Bla Lime	1580	1760	1580	
sand, shale	1780	1888	1760	
Weir	1866	1892	1866	
send, shale	1892	2022	1892	
Gantz	2022	2044	2022	
sand, shate	2044	2086	2044	
50 ft	2086	2153	2086	
sand, shale	2153	2176	2153	
30 ft	2176	2200	2176	
sand, shele	2200	2302	2200	
Gordon	2302	2320	2302	
sand, shale	2320	2540	2320	
4th	2540	2586	2540	
sand, shale	2596	2612	2598	
5th	2612	2650	2612	
eand, shale	2650	2870	2650	
Bayard	2870	2693	2670	
send, shale	2693	2946	2693	· • · ·
Speechiey	2946	3110	2946	
sand, shale	3110	3182	3110	
Salitown	3182	3446	3182	
sand, shale	3446	3532	3446	
Sredford Sredford	3532	3920	3532	
sand, shale	3920	4114	3920	
Riley	4114	4262	4114	
sand, shala	4262	4516	4262	
Benson	4516	4598	4516	
sand, shale	4598	4774	4598	AA H AAAAAA TD
1st Elk	4774	4818	4774	Mudloggers on well at 6450' to TD.
send, shale	4818	8838	4818	TD vertical @7150" / KOP @ 7184"
Sycamore	6650	6684	6650	36-50 unit show in Sycamore
sand, shale	6684	5742	6884	104 unit show at 7130'
Geneseo	7464	7487	7449	4700
Tully	7487	7558	7470	4702 unit show in Geneseo at 7449 TVD
send, shela	7558	7892	7470	Gas shows in Marcellus lateral from 10 to 5,000 units.
Marcellus	7729	11,483	7657	
		Orillers TD		

State of West Virginia Division of Environmental Protection

Section of Oil and Gas							
		Well Operator	's Repor	t of Well	Work	1.5((_	
Farm name:	GLOVER, F	VER, FORREST, ETAL Operator Well No.: M. ELDER 11					
LOCATION:	Elevation:	893'	Quad	irangle:	CENTERP	OINT 7.5'	
	District: Latitude: Longitude:	MCELROY 7,850 Feet south of 7,100 Feet west of		nty: TYI Deg 27 Deg 40	Min 30	Sec. Sec.	
Company:	P.O. BOX 55	OURCES, INC. 519 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Agent:	PHILIP S. O	NDRUSEK					
Inspector: Permit Issued: Well work Con Well work Con Verbal pluggin;	npleted:	01/20/10 04/01/10 04/01/10	•				
permission gran Rotary X Fotal Depth (fe Fresh water dep	nted on: Cable et)	Rig 2925' NA		8 5/8"	220'	220'	180 sks
Salt water depti		NA NA		4 1/2"	2896.7'	2896.7'	275 sks
Is coal being m Coal Depths (fi		NA NA					
OPEN FLOW	DATA	* WATERFLOOD IN	JECTOR				
Gas:			MCF/d MCF/d and fina	Fina I tests	Pay zone do al open flow	Hours	2766'-2780' * Bbl/d Bbl/d
Static rock pressurepsig (surface pressure) afterHours Second producing formation Pay zone depth (ft)							
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/o							Bbl/d Bbl/d
Static	rock pressure		psig (su	rface pres	ssure)	after	Hours
OR STIMULATIN	NG, PHYSICAL (ECORD OF ALL REC	4, PUT THE FOLLOWING: 1 CHANGE, ETC. 2) THE WEI FORMATIONS, INCLUDIN FOIL & Gas	LL LOG W IG COAL I	THICH IS A ENCOUNTE	SYSTEMATI RED BY TH	C DETAILED	TURING
		Oil & Gas _{For: EAST}	RESOU	RCES, IN	C.	Kleeda	
	FER () 5 2013 Date:				5/12/	11:0

WV Department of Environmental Protection

Treated perfs. 2766'-2780' w/ 250 gals. 15% HCl acid, 380 bbls cross linked gel, and 25,800 # 20/40 sand.

Well Log:

Well Openston's Deposit of Wall Willed

•		wen	Operator's R	eport of Well	Work	·- ''		\\/
Farm name:	LEMASTER	S, DAVID	•	Operator Well	No.: I. BA		- · (}	M
LOCATION:	Elevation:	1,304'	(Quadrangle:	CENTERP	OINT 7.5'		
	District: Latitude: Longitude:		eet south of eet west of	County: TYI 39 Deg 27 80 Deg 40	Min 30	Sec. Sec.		
Company:	P.O. BOX 55	URCES, INC. 19 V 26105-5519		Casing Tubing Size	Used in Drilling	Left in Well	Fil	ment ll Up ı. Ft.
Agent:	PHILIP S. O	NDRUSEK						
nspector: 'ermit Issued: Well work Com Well work Com		R 01/20/10 03/30/10 04/02/10						
Verbal plugging permission gran Rotary X Fotal Depth (fee	ted on: Cable	Rig 3360'		8 5/8"	570'	570'	290	sks
resh water depth	ths (ft)	NA NA		4 1/2"	3235.7'	3235.7'	150	sks
s coal being mi Coal Depths (ft)		N) NA	<u>N</u>					
OPEN FLOW I	DATA	* WATERF	LOOD INJECT	ror '			3165'-3	3180'
	ing formation		Gordon		Pay zone de	epth (ft)	3185'-3	
Gas:	Initial open floring final open floring	ow	* MC		d open flow	- ,, , -	*	_Bbl/d _Bbl/d
	Time of ope ock pressure	n_flow_betwe 	en initial and psig	final tests—g (surface pres		Hours after		Hours
Second	l producing for	mation			Pay zone d	enth (ft)		
Gas:	Initial open fl Final open fle	low _		F/d Oil: Initi F/d Fina		v	••••••	Bbl/d Bbl/d
Statia -			en initial and		<u>-</u>	Hours		- Hours
	OF THIS FORM		LOWING: 1) DE	ETAILS OF PERI	FORATED IN	TERVALS, FRAC	CTURING	-
•	FEB 05	2013 F	or: EAST RE	SOURCES, IN	C. / 2	a Held		
	WV Depar	tment of	Date:			5/14	<u>/</u> o	
	WA Dehai MA Dehai	tment of al Protection	П			•		

Treated perfs. 3165'-3187' w/ 250 gals. 15 % HCl acid, 388 bbls cross linked gel, and 25,500 # 20/40 sand.

Well Log:

COPY

Well Operator's Report of Well Work

		•	^						
Farm name:	LEMASTER	S, DAVID W., ET AL	Opera	Operator Well No.: B.A. SWIGER 7					
LOCATION:	Elevation:	1,168'	Quad	rangle:	CENTERP	QINT 7.5'			
	District: Latitude: Longitude:	MCELROY 6,720 Feet south of 11,180 Feet west of	39	ty: TYL Deg 27 Deg 40	Min 30	Sec.			
Company:		URCES, INC.	Ī	Casing	Used in	Left	Cer	nent	
	P.O. BOX 55			Tubing			Fil	l Up	
	VIENNA, W	V 26105-5519	1	Size	Drilling	in Well	Cu	. Ft.	
Agent:	PHILIP S. O	NDRUSEK			•				
Inspector:	JOE TAYLO	R	1						
Permit Issued:		12/18/09							
Well work Con	nmenced:	04/16/10	İ						
Well work Con	npleted:	04/16/10							
Verbal plugging	g								
permission gran	nted on:		Ī	,					
Rotary X	Cable	Rig		8 5/8"	442'	442'	225	sks	
Total Depth (fe		3172'							
Fresh water dep	oths (ft)	NA NA	Ī						
				4 1/2"	3101.4'	3101.4'	275	sks	
Salt water dept	hs (ft)	NA	ļ						
T 11	1	<u> </u>							
Is coal being m	•								
Coal Depths (fi	D:	NA	Ţ		<u> </u>		<u> </u>		
ODENI EL OTA	DATA.	* 11/4 (TEDDET OOD DATE	- C						
OPEN FLOW	DAIA	* WATERFLOOD INJE	CTOR						
Duo dan	aina famaatian	O1	_		D 1	.1 (0)	000610	00.61	
Gas:	cing formation	Gordon * N				epth (ft)	3026'-3 *		
Gas.	Initial open for Final open float				al open flow Lopen flow		*	Bbl/d	
· · · · · · · · · · · · · · · · · · ·		en flow between initial a	nd fina	1 tecto	r-oberr-rrow	Hours		Bbl/d	
Static	rock pressure			rface pres	sgure)	after		Hours	
Sauce	room probbato	£	barg (au	race pro	ssurc _j	arter		ilouis	
Secon	d producing for	rmation			Pay zone d	epth (ft)			
Gas:	Initial open f		MCF/d	Oil: Initi	al open flov			Bbl/d	
	Final open flo		MCF/d		l open flow	*****		Bb1/d	
	Time of ope	en flow between initial a	ınd fina	1 tests	-	Hours	,	•	
Static	rock pressure	I	osig (su	rface pres	ssure)	after		Hours	
NOTE: ON BACI	Z OR THIS RODA	1, PUT THE FOLLOWING: 1)	ъртап	e Or bebr	יות משדא מסי	TEDMALS EDAG	m mnr.c		
OR STIMIT ATT	NG PHYSICAL (CHANGE, ETC. 2) THE WELI	LIUGM	MICH IS A	MI USTANO TAMBTRVS	IEKVALS, FRAC IC DETAILED	DMING		
		TOWATIONS, INCLUDING							
						- 11.2220VXU.			
	Office of	OII & Gas For: EAST F	DECOIT	OPC N	C)			
	EED V		CLOOCH.	KCEO, IIV	1/1	11.00			
	FEB O	o 2013 Date:			Ju	- Will		 -	
	WAY Dans					5 //2//0			
	WV Depai	riment of	•						
E	i vii Oi ii Nenta	al Protection							

Treated perfs. 3026'-3036' w/ 250 gals. 15% HCl acid, 350 bbls cross linked gel, and 22,000 # 20/40 sand.

Well Log:

Section of Oil and Gas Well Operator's Report of Well Work



		*	•					
Farm name:	GLOVER, F	ORREST	Oper	ator Well	No.: MELI	DER 13-R		
LOCATION:	Elevation:	1,320.00	Quad	rangle:	CENTERPO	DINT 7.5'		
	District: Latitude: Longitude:	MCELROY 7,950 Feet south of 8,760 Feet west of		ity: TYL Deg 27 Deg 40	Min 30	Sec. Sec.		
Company:	P.O. BOX 55	URCES, INC. 519 V 26105-5519		Casing/ tubing Size	Used in Drilling	Left in Well	Ceme Fill U Cu. F	p
Agent:	PHILIP S. O	NDRUSEK						
Inspector: Permit Issued: Well work Cor Well work Cor	npleted:	01/20/10 04/06/10 04/08/10				·····		
Verbal pluggin permission gra Rotary X Total Depth (fe	nted on:Cable eet)	Rig 3336'		8 5/8"	575'	575'	250 sk	'S
Fresh water dept		N/A NA		4 1/2"	3280'	3280'	275 sk	:S
Is coal being m Coal Depths (f OPEN FLOW	t):	7N) N 657'-661' * WATERFLOOD IN	JECTOR					
Gas:	cing formation Initial open: Final open f Time of op rock pressure	low *	MCF/d MCF/d and fina	Fina	Pay zone de al open flow lopen flow ssure)		_*B	0' bl/d bl/d
Gas:	d producing fo Initial open Final open f Time of op rock pressure	low	MCF/d and fina	Fina	Pay zone do al open flow ssure)		В	bl/d bl/d lours
NOTE: ON BAC	K OF THIS FORM NG, PHYSICAL RECORD OF ALI		1) DETAIL LL LOG V	LS OF PERI VHICH IS A ENCOUNT	FORATED IN SYSTEMATI ERED BY THE	TERVALS, FRAC C DETAILED	CTURING	
	Office of (By:	KESOU	RCES, IN	U. ///	n &bla	<u></u>	
	FEB 0	2013 Date	:		0	5/4/10)	

WW Department of
Environmental Protection

Treated Gordon perforations 3190'-3206' w/250 gals 15% HCL, 380 bbls cross linked gel and 25,000 # 20/40 sand

Well Log:

3(D.	\bigvee
	L1	i*	11

	•	Well (Operator's I	Repor	t of Well	Work			•
Farm name:	GLOVER, ST	TEPHEN PAU				No.: PHO	RNER 13	G	
LOCATION:	Elevation:	812'		Quad	drangle:	CENTERP	OINT 7.5'		
	District: Latitude: Longitude:	MCELROY 4,825 Fe 6,945 Fe	et south of et west of	Cour 39 80	Deg 27				
Company:	EAST RESOUR P.O. BOX 555 VIENNA, WY	URCES, INC. 19 V 26105-5519			Casing/ tubing Size	Used in Drilling	Left in Well	Fil	ment ll Up 1. Ft.
Agent:	PHILIP S. ON	DRUSEK							
nspector: Permit Issued: Well work Com Well work Com Verbal plugging permission gran	pleted:	01/20/10 04/06/10 04/08/10							
	_Cable et) 2	Rig 5,885 N/A			8 5/8"	306'	306'	125	sks
Salt water depth	_	NA NA			4 1/2"	2875'	2875'	300	sks
s coal being min Coal Depths (ft)	:	N) NA	<u> </u>						
OPEN FLOW D	OATA	* WATERFL	OOD INJEC	CTOR					
Produci	ing formation		Gordon			Pay zone de	epth (ft)	2783'-2	.81 <i>7</i> '
Gas:	Initial open flo		* M	CF/d	Oil: Initi	al open flow		*	Bbl/d
	Final open flo			CF/d	Fina	l open flow	-	*	Bbl/d
<u> </u>	Time of oper	flow between					Hours		
Static re	ock pressure		psi	ig (su	rface pres	ssure)	after		Hours
Second	producing form	nation				Pay zone de	opth (ft)		
Gas:	Initial open flo		M	CF/d	Oil: Initia	al open flow			Bbl/d
	Final open flo			CF/d		l open flow			Bbl/d
a		1 flow between					Hours		.
Static re	ock pressure		psi	ig (su	rface pres	ssure)	after		Hours
NOTE: ON BACK OR STIMULATING BEOLOGICAL RE	G, PHYSICAL CI	HANGE, ETC. 2)	THE WELL I NCLUDING C	LOG W OAL I	HICH IS A ENCOUNTE	SYSTEMATIC RED BY THE	C DETAILED	TURING	
			r: EAST RE By:	SOU	KCES, IIY			•	
	FEB	0 5 2013	Date:			12m /	14/10		

WV Department of Environmental Protection

Treated Gordon perforations 2783'-2817' w/250 gals 15% HCL, 406 bbls cross linked gel and 25,000 # 20/40 sand

Well Log:

API#

State of West Virginia Division of Environmental Protection Section of Oil and Gas



Well Operator's Report of Well Work

		··· ozz o pozutos	. D zappoz	, , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Farm name:	GLOVER, S	TEPHEN PAUL	Opera	perator Well No.: H. J. INGRAM 5					
LOCATION:	Elevation:	925'	Quad	lrangle:	CENTERPO	OINT 7.5'			
	District: Latitude: Longitude:	MCELROY 4,350 Feet south 6,110 Feet west of		Deg 27	Min 30	Sec. Sec.			
Company:	P.O. BOX 55	URCES, INC. 519 V 26105-5519		Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.		
Agent:	PHILIP S. O	NDRUSEK							
Inspector: Permit Issued: Well work Con Well work Con Verbal pluggin	apleted:	12/30/09 04/08/10 04/10/10							
permission gran Rotary X Total Depth (fe	_Cable et)	Rig 2,940	:	7"	355.00'	355.00'	90 sks		
Fresh water dept		N/A 1720		4 1/2"	2901.00'	2901.00'	150 sks		
Is coal being m Coal Depths (f OPEN FLOW	t):	NA NA * WATERFLOOD IN)JECTOR						
Gas:	cing formation Initial open for the contract of the contract open for the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the cont	low *	MCF/d MCF/d and fina	Fina	Pay zone dial open flow al open flow ssure)	v	2794'-2809' * Bbl/d * Bbl/d Hours		
Gas:	d producing fo Initial open: Final open f Time of op rock pressure	low	MCF/d and fin	Fina	Pay zone dial open flow al open flow essure)	v	Bbl/d Bbl/d Hours		
OR STIMULATI	NG, PHYSICAL	M, PUT THE FOLLOWING: CHANGE, ETC. 2) THE W. L FORMATIONS, INCLUDI	ELL LOG V	WHICH IS A	SYSTEMAT	IC DETAILED	CTURING		
	REC Office o	SEIVED FOII & Gas ^{For: EAS} By:	T RESOU	IRCES, IN	IC. //_	Kb ldn			
	FEB	0 5 2013 Date			Viga	5/4/10			
		=							

WV Department of

Treated Gordon perforations 2794'-2809' w/250 gals 15% HCL, 389 bbls cross linked gel and 22,000 # 20/40 sand

Well Log:

Well Operator's Report of Well Work

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		wen obe	rator a Kehol	t of well	WORK	، سے ۵ ط	<u> </u>
Farm name:	GLOVER, S	TEPHEN PAUL	Ope	rator Well	No.: E. T.	PARKS 7	
LOCATION:	Elevation:	1006'	Qua	drangle:	CENTERP	OINT 7.5'	
	District: Latitude: Longitude:	MCELROY 5,170 Feet s 6,060 Feet v	outh of 39	nty: TYI Deg 27 Deg 40		Sec.	
Company:	P.O. BOX 55	URCES, INC. 119 V 26105-5519		Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Agent:	PHILIP S. O	NDRUSEK					
nspector: Permit Issued: Well work Com Well work Com		OR 01/20/10 04/06/10 04/08/10					
Verbal plugging permission gran Rotary X Fotal Depth (fee	ted on: Cable	Rig 3,030		7"	354.00'	354.00'	90 sks
Fresh water depth	ths (ft)	N/A 1440		4 1/2"	2962.90'	2962.90'	150 sks
s coal being mi):	NA					
Gas:	ing formation Initial open f Final open flo	low *	Gordon MCF/d MCF/d	Oil: Initi Fina	Pay zone do al open flow al open flow		2884'-2915' * Bbl/d * Bbl/d
	ock pressure	en flow between i		ar tests—urface pre		Hours after	Hours
Gas:	l producing for Initial open f Final open flo Time of ope ock pressure	low	MCF/d nitial and fin	Fina	Pay zone de lal open flow ssure)		Bbl/d Bbl/d Hours
NOTE: ON BACK	OF THIS FORM IG, PHYSICAL O ECORD OF ALL RECI Office of		TING: 1) DETAI IE WELL LOG V LUDING COAL	LS OF PERI WHICH IS A ENCOUNT	FORATED INT SYSTEMATI ERED BY TH	TERVALS, FRAC C DETAILED E WELLBORE.	
	FEB 0	5 20 13	Date:		51	4/10	

WV Department of Environmental Protection

Treated Gordon perforations 2884'-2915' w/250 gals 15% HCL, 398 bbls cross linked gel and 24,000 # 20/40 sand

Well Log:

API#

47 095 01846

State of West Virginia Division of Environmental Protection Section of Oil and Gas

COP	Y
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		Well Ope	erator's Re	epor	t of Well	Work	((,	
Farm name:	GLOVER, FF	ED & DOTTIE		-		No.: MCIN	ITYRE 15	***
LOCATION:	Elevation:	1,311'	(Quad	lrangle:	CENTERP	OINT 7.5'	
	District: Latitude: Longitude:	MCELROY 10,725 Feet s 6,100 Feet s	south of		ty: TYI Deg 27 Deg 40	Min 30	Sec.	I
Company:	P.O. BOX 55	URCES, INC. 19 V 26105-5519			Casing Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Agent:	PHILIP S. ON	NDRUSEK						
Inspector: Permit Issued: Well work Com Well work Com Verbal plugging	pleted:	R 01/20/10 04/16/10 04/16/10	- -					
permission gran Rotary X Total Depth (fee Fresh water dep	ted on: Cable et)	Rig 3,320' NA	-		7"	644'	644'	160 sks
Salt water depth		NA NA			4 1/2"	3278.8'	3278.8'	150 sks
Is coal being microal Depths (ft):	NA NA * WATERFLOO	- OD INJEC	ГOR				3173'-3185',
Produc	ing formation		Gordon			Pay zone d	epth (ft)	3199'-3203'
Gas:	Initial open fl Final open flo			F/d F/d		ial open flow al open flow	v	* Bbl/d * Bbl/d
Static		n flow between	initial and	fina			Hour	
	l producing for			107/4	Oil. Tait	Pay zone d		Bbl/d
Gas:	Initial open floring open floring of one		MC	CF/d	Fina	al open flow		Bbl/d
Static	rock pressure	———			irface pre	essure)	after	Hours
OR STIMULATIN	VG, PHYSICALA	I, PUT THE FOLLOV HENDGE, ETC. 2) T FOR VOLUMENTS, INC	HE WELL L	OG V	VHICH IS A	SYSTEMAT	IC DETAILED	
	FE3 0 5		EAST RE By:	SOU	RCES, IN	ic.	La Hed	
	WV Depa	riment of	Date:				5/12/1	o
	nvironment	al Protection						

Treated perfs. 3173'-3203' w/ 250 gals. 15% HCl acid, 393 bbls cross linked gel, and 25,000 # 20/40 sand.

Well Log:

WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/11/2013
API#:	47-095-02038

Farm name: Moore, Forest C. Jr. & Brenda	_ Operator Well	No.: Ed Arnold	Unit 1H		
LOCATION: Elevation: 749	_ Quadrangle: C	Center Point 7.5'			
District: McElroy	County: Tyler				
Latitude: 8995' Feet South of 39 Deg.	25Min.				
Longitude 7564' Feet West of 80 Deg	g. 42 Min.	Sec	.		
Antero Resources Appalachian Corp					
Company:	Casing &	Used in	Left in well	Cement fill	
Address: 1625 17th Street	Tubing	drilling		up Cu. Ft.	
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft.	
Agent: CT Corporation System	13 3/8" 68#	537'	537'	746 Cu. Ft. Class A	
Inspector: Joe Taylor	9 5/8" 36#	2662'	2662'	1084 Cu. Ft. Class A	
Date Permit Issued: -12/22/2011	5 1/2" 20#	14121'	14121'	3435 Cu. Ft. Class H	
Date Well Work Commenced: 4/6/2012					
Date Well Work Completed: 7/26/2012					
Verbal Plugging: N/A					
Date Permission granted on: N/A	2 3/8" 4.7#	6856'			
Rotary Cable Rig					
Total Vertical Depth (ft): 6703' TVD					
Total Measured Depth (ft): 14121' MD					
1 - 1777 - Poul (A) est 120', 291'					
· · · · · · · · · · · · · · · · · · ·					
Balt Water 24pts (14)					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): est. 672', 747'					
Void(s) encountered (N/Y) Depth(s) None					
OPEN FLOW DATA (If more than two producing formation Marcellus Pa Gas: Initial open flow MCF/d Oil: Initial open Final open flow 8348 MCF/d Final open flow between initial and final tests N Static rock Pressure 3550 psig (surface pressure)	y zone depth (ft) n flow N/AE low N/AB 1/AHour	6557* (VD) (16 3bl/d bl/d rs	data on separate	sneet)	
Dooring processing sections and an arrangement of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract	zone depth (ft)				
Gas: Initial open flowMCF/d Oil: Initial ope	D	361/d 361/d			
Final open flow MCF/d Final open f	Hour	rs		.გ ი	985 2005
Static rock Pressurepsig (surface pressure) afterHo	ours			
Final open flowMCF/d Final open for Time of open flow between initial and final tests_ Static rock Pressurepsig (surface pressure) I certify under penalty of law that I have personally examinall the attachments and that, based on my inquiry of those in that the information is true, accurate, and complete.	ned and am famili ndividuals immed	ar with the info	ormation submit	ted on this document a g the information I bel	nd ' ieve
Shown Ile			1/24/13		
Signatu	re		Date		

re core samples taken? YesNo_X re Electrical, Mechanical or Geophysical logs recoto Density/ Compensated Nautron/ Gamma Ray and Dual Laterologo OTE: IN THE AREA BELOW PUT THE RACTURING OR STIMULATING, PHYSIC ETAILED GEOLOGICAL RECORD OF COAL ENCOUNTERED BY THE WELLBOR erforated Intervals, Fracturing, or Stimulating: erforations: 6848'-14057' (1248 holes) rac'd w/ 11,000 gals 15% HCL Acid, 18,743,723# 40/70 and 1,486,074# 20/40 Plug Back Details Including Plug Type and Deptagrations Encountered:	HE FOLLOWING: 1). CAL CHANGE, ETC. 2). THE TOPS AND BOT RE FROM SURFACE TO 52,482 bbls Slick Wa 0 sand.	DETAILS OF PERFORATED. THE WELL LOG WHICH IS A S TOMS OF ALL FORMATIONS, O TOTAL DEPTH. Ster carrying 795,784# 100 mes	
OTE: IN THE AREA BELOW PUT THE RACTURING OR STIMULATING, PHYSIC ETAILED GEOLOGICAL RECORD OF OAL ENCOUNTERED BY THE WELLBOR erforated Intervals, Fracturing, or Stimulating: erforations: 6848'-14057' (1248 holes) rac'd w/ 11,000 gals 15% HCL Acid, 15,743,723# 40/70 and 1,486,074# 20/40. Plug Back Details Including Plug Type and Depter Formations Encountered:	HE FOLLOWING: 1). CAL CHANGE, ETC. 2). THE TOPS AND BOT RE FROM SURFACE TO 52,482 bbls Slick Wa 0 sand. hth(s): N/A	DETAILS OF PERFORATED. THE WELL LOG WHICH IS A S TOMS OF ALL FORMATIONS, O TOTAL DEPTH. Ster carrying 795,784# 100 mes	sh,
OTE: IN THE AREA BELOW PUT THE RACTURING OR STIMULATING, PHYSIC ETAILED GEOLOGICAL RECORD OF OAL ENCOUNTERED BY THE WELLBOR Perforated Intervals, Fracturing, or Stimulating: Perforations: 6848'-14057' (1248 holes) rac'd w/ 11,000 gals 15% HCL Acid, 15,743,723# 40/70 and 1,486,074# 20/40. Plug Back Details Including Plug Type and Depter Formations Encountered:	HE FOLLOWING: 1). CAL CHANGE, ETC. 2). THE TOPS AND BOT RE FROM SURFACE TO 52,482 bbls Slick Wa 0 sand. hth(s): N/A	DETAILS OF PERFORATED. THE WELL LOG WHICH IS A S TOMS OF ALL FORMATIONS, O TOTAL DEPTH. Ster carrying 795,784# 100 mes	sh,
erforated Intervals, Fracturing, or Stimulating: erforated Intervals, Fracturing, or Stimulating: erforations: 6848'-14057' (1248 holes) erac'd w/ 11,000 gals 15% HCL Acid, 15,743,723# 40/70 and 1,486,074# 20/40 Plug Back Details Including Plug Type and Depter Formations Encountered:	THE TOPS AND BOTRE FROM SURFACE TO 52,482 bbls Slick Wa 0 sand. oth(s): N/A	o TOTAL DEPTH.	sh,
erforations: 6848'-14057' (1248 holes) rac'd w/ 11,000 gals 15% HCL Acid, 15,743,723# 40/70 and 1,486,074# 20/40 Plug Back Details Including Plug Type and Dept	oth(s): N/A		
Plug Back Details Including Plug Type and Dept	oth(s): N/A		
Plug Back Details Including Plug Type and Depter Formations Encountered:	oth(s): N/A		
Plug Back Details Including Plug Type and Dept	oth(s): N/A		
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Formations Encountered:		Bott	om Denth
Formations Encountered:		Bott	om Denth
Formations Encountered:		Bott	om Denth
Formations Encountered:		Bott	om Denth
	Top Depth	, Bott	om Denth
	Top Depth	, B <u>ott</u>	om Denth
	Top Depth		OIII 170ber
Surface:	2678'	2803'	
Gantz Sand	2804'	2918'	
Fifty Foot Sand	2804 2919'	3122'	
Gordon	- -	3153'	
Gordon Fifth Sandstone	3123'	3526'	
	3154'	3903'	
Bayard	3527'	4183'	
Warren	3904'	4381'	
Speechley	4184'	4836'	
Balltown	4382'	5090'	
Bradford	4837'	5283'	
Benson	5091'	5901'	
Alexander	5284'	6169'	
Elk	5902'	6328'	
Rhinestreet	6170'	6832'	
Sycamore	6329'	6469'	
Middlesex	6383'	6497'	
West River Shale	6470'	6556'	
Burket	6498'	6556 6703' TVD	

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WR-35 Rev (9-11)

Farm name: Moore, Forest C. Jr. & Brenda

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

Operator Well No.: Ed Arnold Unit 2H

DATE:	1/14/2013	
API#:	47-095-02039	

ATION: Elevation: 749'	_ Quadrangle: _	Center Point 7.5'		
District: McElroy	County: Tyler			
Latitude: 8987 Feet South of 39 Deg	. 25 Min.			
Longitude 7558' Feet West of 80 De	g. 42 Min.	. <u>30</u> See	C.	
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft.
Agent: CT Corporation System	13 3/8" 48#	544'	544'	756 Cu. Ft. Class A
Inspector: Joe Taylor	9 5/8" 36#	2833'	2833'	1153 Cu. Ft. Class A
Date Permit Issued: 12/22/2011	5 1/2" 20#	15396'	15396'	3734 Cu. Ft. Class H
Date Well Work Commenced: 4/6/2012				
Date Well Work Completed: 8/6/2012				
Verbal Plugging: N/A				
Date Permission granted on: N/A	2 3/8" 4.7#	6966'		
Rotary Cable Rig				
Total Vertical Depth (ft): 7275' TVD				
Total Measured Depth (ft): 15396' MD				
Fresh Water Depth (ft.): 120', 291'				
Salt Water Depth (ft.): None available				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): est. 672', 747'				
Void(s) encountered (N/Y) Depth(s) None				
PEN FLOW DATA (If more than two producing formation Marcellus Pa Gas: Initial open flow MCF/d Oil: Initial open Final open flow 6033 MCF/d Final open flow 5031 MCF/d Final open flow between initial and final tests Notatic rock Pressure 3550 psig (surface pressure)	y zone depth (ft) <u>(</u> n flow <u>N/A</u> B low <u>N/A</u> Bl /A Hours	<u>6545' TV</u> D (To bl/d bl/d s	data on separate op)	sheet)
Second producing formationPay				
Gas: Initial open flow MCF/d Oil: Initial open				
Final open flow MCF/d Final open fl				
Time of open flow between initial and final tests_ Static rock Pressurepsig (surface pressure)				
				ein'
ify under penalty of law that I have personally examine	ed and am familia	r with the info	rmation submitt	ed on this docume the information I
e attachments and that, based on my inquiry of those in the information is true, accurate, and complete.	idividuais illilledi	iately responsi	ore for committee	Office .
ne information is true, accurate, and complete.	·		114/12	

Signature

Date

Were core samples taken? YesNo_X Were cuttings caught during drilling? YesNo							
Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes - CBL, Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please reference the wireline logs submitted with Form WR-35 for Ed Amold Unit							
Were Electrical, Mechanical or Geophy	sical logs recorded on this Well? IT is the street of a multi-well pad (Ed Amold Unit 1H API#47-095-02)	yes, prease rise instance the wireline logs submitted with Form WR-35 for Ed Arnold Unit 1H.					
This is a subsequent well. Antero druy runs wareful a Ugs on the first							
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH. Perforated Intervals, Fracturing, or Stimulating:							
Frac'd w/ 12,500 gals 15% HCL	Acid, 171,189 bbls Slick Wa	ater carrying 943,127# 100 mesh,					
3,272,127# 40/70 and 1,881,55	0# 20/40 sand.						
Plug Back Details Including Plug Type	and Depth(s): N/A						
	Top Depth	/ Bottom Depth					
Formations Encountered:	тор Бериі						
Surface:							
Gantz Sand est.	2678'	2803'					
Fifty Foot Sand est.	2804'	2918'					
Gordon est.	2919'	3122'					
Fifth Sandstone est.	3123'	3153'					
	3154'	3526'					
Bayard est.	3527'	4836'					
Warren est.	4837'	5090'					
Benson est.	5091'	5283'					
Alexander est.	5284'	5901'					
Elk est.	5902'	6169'					
Rhinestreet est.	6170'	6205'					
Sycamore est.	6206'	6317'					
Sonyea	6318'	6369'					
Middlesex		6458'					
West River Shale	6370'	6487'					
Burket	6459'	6544'					
Tully	6488'	7275' TVD					
Marcellus	6545'	12/3 140					

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